

# Journal of the Royal Institute of British Architects

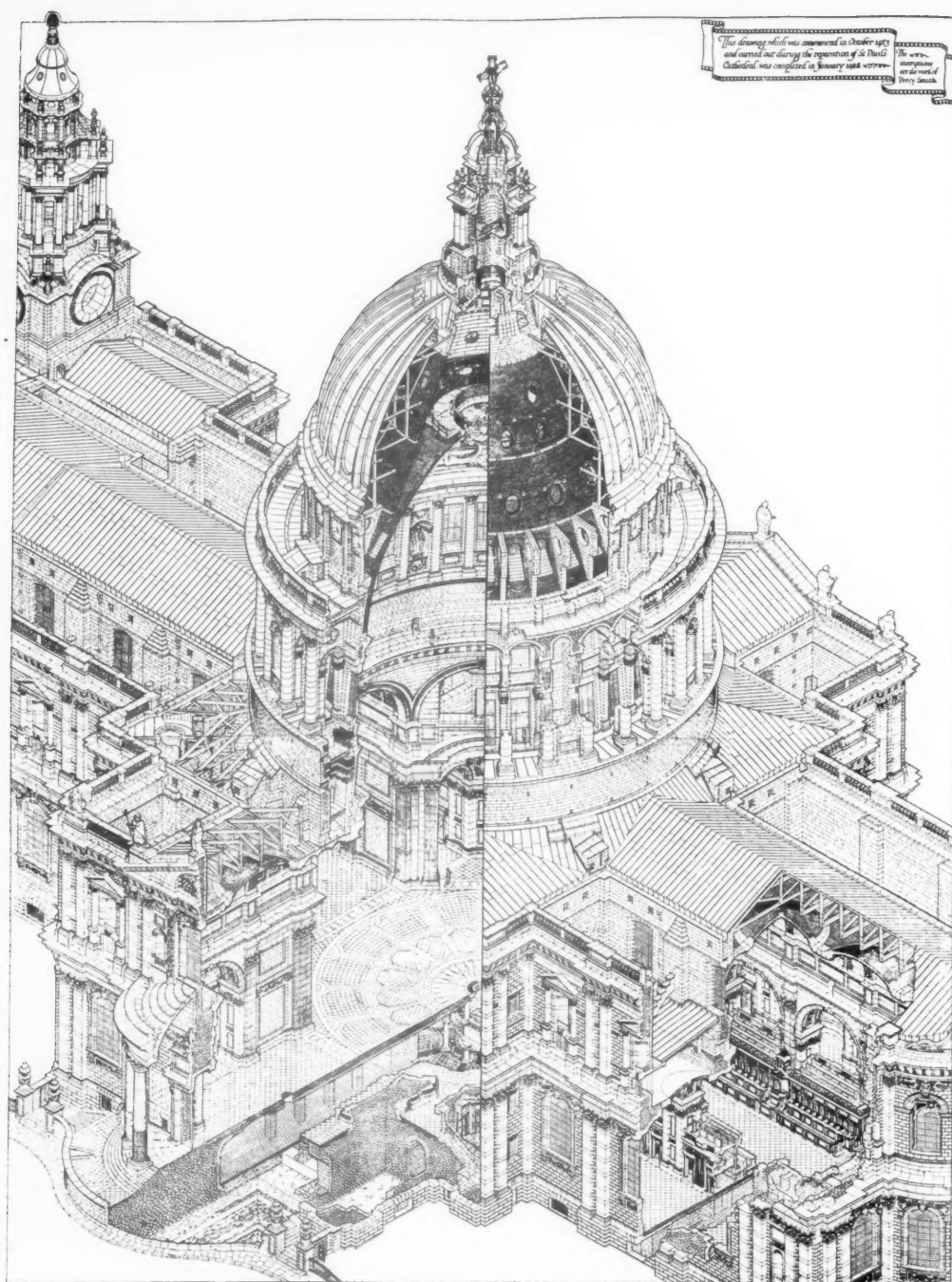
THIRD SERIES

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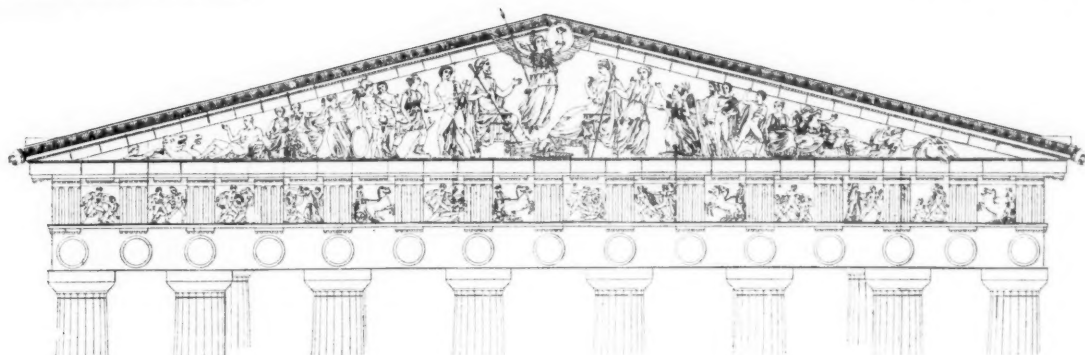


TO WILLIAM DUNN, F.R.I.B.A.

WHO FIRST SUGGESTED THE IDEA OF SHEWING THE CONSTRUCTION OF ST. PAUL'S CATHEDRAL  
BY ISOMETRIC PROJECTION

THIS DRAWING IS INSCRIBED BY MERVYN EDMUND MACARTNEY, F.S.A., SURVEYOR TO THE FABRIC  
MEASURED AND DRAWN BY R. B. BROOK-GREAVES, IN COLLABORATION WITH W. GODFREY ALLEN  
VALUABLE ASSISTANCE HAS BEEN RENDERED BY MATTHEW DAWSON, F.R.I.B.A., AND E. J. BOLWELL

(See page 804)



## Architecture as Sculpture

*Notes of a Lecture delivered to the Liverpool Architectural Society on 21 November 1928*

BY ERIC GILL

**A**RCHITECTURE in particular defined as :  
House building with an eye to beauty.  
A beautiful thing is that which, being seen, pleases.

House = house, workshop, factory, church, town hall, etc.

Sculpture in particular defined as :

Carving or modelling of the human figure with an eye to beauty.

Architecture in general defined as :

(Distinguished from mere building.)

The putting together of different kinds of works into a co-ordinated whole, by a ruling mind, such that the parts, though retaining their several functions and identities, are merged in a unity by the design of the architect, i.e., master of the works. The *ruling motif* of the architect is the making of a beautiful building or construction.

Sculpture in general defined as :—

1. Differing from architecture in that the sculptor is only concerned with one kind of work, whereas the architect is concerned to co-ordinate many different kinds.

Both are concerned with beauty.

Both are concerned with things in three dimensions.

Both are concerned with the ordering of parts into a unity.

Both are generally concerned with service, i.e., making something useful.

Both endeavour to escape this concern.

2. Also sculpture differs from architecture in that in

architecture construction, putting different things together, is essential ; in sculpture it is not.

3. Also architecture differs from sculpture in that whereas the sculptor is thought of as doing the work with his own hands, and very often he actually does so, the architect is thought of as doing the work by means of other people's hands—he is co-ordinator of other men's work rather than executant of his own.

Beauty—the word is a stumbling-block.

Do not let us stumble over it.

Beauty is the *Splendour of Being*. The primary constituent of visible Being is Order.

Beauty in architecture is conspicuous order—order shining out. Hence it is of the mind. It is the mind that is pleased by things called beautiful. (The kinds of pleasure which are not primarily of the mind are generally called *lovely*, because lovable, i.e., desired and desirable, satisfying a physical need or appetite rather than a mental satisfaction.)

But the lovely and the beautiful are mixed—because man is matter as well as mind—both real and both desirable—both true and both good.

Hence man's work is concerned with both the *beautiful* and the *lovely*.

But art is specifically concerned with the beautiful—that is its ratio—its *raison d'être*—its reason of being.

Beauty—conspicuous order.

The *beautiful*—conspicuous order in things.

Order—rightly ruled, governed, arranged, proportioned.

*Rightly*—in accordance with the demands of mind.

*Mind*—*intellect*, i.e., the faculty of knowing and *will*—i.e., the faculty of reaching out to things, grasping them, acting, ordering, governing in accordance with what is known.

When a thing is well made, well ordered, the mind of him who contemplates it is at rest, it is satisfied—it is pleased.

This pleasure is not of the senses—though the senses share it.

Nor is it the pleasure of knowing.

It is not simply that kind of pleasure which we have when we discover the right solution of a problem.

Nor is it simply that kind of pleasure which we have when we see or receive an act of kindness.

It is the delight of the mind in seeing the thing itself.

It follows immediately upon the mind's grasping or comprehension of the thing presented to it.

It is the result of the mind's recognition of what is after its own kind.

In things of beauty the mind comes into its own.

It is possible to ask: What is a beautiful *building*?—but it is not possible to answer.

It is like asking: What is a beautiful animal, or what is a beautiful colour, or what is a beautiful shape.

It is necessary first to know what the thing is.

When we say, e.g., the Venus of Milo is a beautiful sculpture, we mean it is a beautifully sculptured Venus. Our knowledge and what the thing is is taken for granted.

And in sculpture, as in architecture, the wider and deeper the knowledge the better.

But this knowledge does not signify book learning.

It is more like the knowledge of friends—as who should say: Do you know Brown? To which the answer might be: Yes, I know him very well.

When we say, e.g., The Post Office at Reading is a beautiful building, we mean it is a beautifully built *Post Office*. Knowledge of what the thing *is*, is taken for granted.

The wider and deeper the knowledge of things, the wider and deeper are our powers of finding beauty—or the lack of it.

Men who have narrow and shallow views as to the nature of Post Offices will build Post Offices less beautifully than those whose views are wider and deeper.

Historically: sculpture comes first; architecture last.

Whatever view we take of early human history, it is obvious that making individual things comes before the job of construction and before the job of co-ordinating the labour of different kinds of workmen.

Cave men with bone—the type of human artist.

That is the workman making a thing as well as he knows how and as well as he can.

Making a thing—i.e., not a picture of a thing—not a representation.

Hence, generally, a thing of three dimensions, and a thing in three dimensions is a work of sculpture.

Whatever view we take of the physical origins or development of men and animals, it is clear that there is a being called man—even if only a creature of the imagination. Even if I only imagine it—still I do imagine it—there is in my mind an image called man, and this creature (imaginary or otherwise) is one for whom beauty is the first need, not the last.

This is true of the most primitive conditions. In fact, the more primitive the conditions the truer it is—so true that there are in such circumstances no lectures about it and no architectural societies. Man has not risen from depths of gluttony and avarice to the heights of beauty and disinterestedness in which we now find ourselves . . . rather it is that gluttony and avarice have overwhelmed him until he now finds himself in London or Liverpool.

The sculptor is the type of the responsible workman.

The architect is the type of the responsible overseer.

In the absence of machinery and subdivided labour:

In the absence of commercial insubordination:

In the absence of cheap drawing-paper (it is often forgotten how dependent we are upon paper; imagine Wren's "detail" paper!) most workmen were responsible persons.

The sculptor, particularly so called, was one of a gang of responsible workmen whose work was co-ordinated by the architect.

To-day the sculptor, in the particular sense, is the only member of the gang who retains full responsibility—the others are only morally responsible for doing what they are told; they have no intellectual responsibility.

Consequence: The sculptor out of place on modern buildings. His work incompatible in kind with that of other building operatives.

Best architects admit this conclusion and leave out all carving and ornament—plain building.

In consequence: the architect's job ceases to be the co-ordination of the works of other responsible persons. He ceases to consider the building gang as *collaborating* with him.

Architect and contractor alone remain, all other men are mere hands.

Architect intellectually responsible for design.

Contractor morally responsible for execution.

Consequence : Architect set free from shackles of old building conventions—"styles" of architecture—"orders"—and free from all old architectural "properties," pillars, porticos, capitals, cornices, arcades, flutings, rustications, etc. Exigencies of use on one hand and his own formal predilections on the other alone concern him—and the latter rules.

The shape of the building when done has always been his chief concern—and the chief concern of the man in the street, too ; but now that shape is not conditioned either by the wills of his employees or by the conventions of previous practice.

The architect is free to consider his building precisely as a sculptor considers his piece of stone—as a thing of mass in three dimensions known to him by means of light and shade and colour alone. (The sculptor has the sense of touch also, but the architect deals with things too big to feel.)

Again : a man who shapes a thing to his liking with his own hands, alone or in collaboration with a few responsible and sympathetic assistants, is in a very different situation, with regard to the work, from that of an architect who shapes nothing with his own hands and cannot be said to collaborate with any one—collaborate is not the word—at the best he is the more or less benevolent despot who nominates the contractor, and the contractor is in the position of employer to a gang of more or less unwilling slaves. They are not called slaves because they are paid . . .

Consequence : the best modern buildings may, from a reasonable distance, appear to be very great and beautiful works ; but "close-ups" kill them—or, rather, show how dead they already are.

Design, proportion, mass may be admirable—the execution being the work of machines is bound to be dead and dull and therefore not pleasing when seen.

This state of things is unavoidable at present. The artist, whether sculptor or architect, is not a social reformer ; he is bound to take things as he finds them.

At the present time we find responsible and intelligent and enthusiastic workmen are very scarce, so that for works of large size we are forced to employ mere *hands*—there are not enough *men*.

Consequence : if we are wise we shall either confine ourselves to such work as we can do by ourselves alone (or with one or two assistants)—i.e., we shall be sculptors . . . or, if "working with our hands" be not in our line, if our enthusiasm lies in the direction of constructing and co-ordinating, we shall become architects or engineers and confine ourselves to the construction of such works as do not call for anything but obedience on the part

of our employees. An engineer's enthusiasm is confined to the work of construction—the work of constructing something which will do something—as a bridge to carry a road, a dam to stop a river, a machine to sew on buttons. In no case is the engineer as such concerned with the beauty of the thing constructed. An engineer is a man who makes things worth using—an architect is one who builds things worth looking at as well as worth using.

Many works of engineers are worth looking at, but that is not what the engineer thinks they are for. Many works of architecture are worth using (living in, for instance), but that is not what the architect is chiefly proud of—nor is it that by which he is remembered.

Who cares now whether the aqueduct at Nîmes ever held or ever could hold water ?

As animals labouring under the necessities of eating and drinking, of shelter and communication, we are all interested in the usefulness of things, and a certain zest is given to our interest in things when we know "how they work" ; but that is only because man is the most ingenious of animals ; it is no indication of his superiority to the beasts that perish. What places him as lord of creation is not his cleverness or ingenuity, not his power of ratiocination, not even his perseverance or his courage. His claim to superiority is based solely on his power of contemplation ; he alone of terrestrial beings is able to recognise *being* ; he alone is capable of disinterestedness.

And as the created universe is primarily a work of art and not primarily a work of kindness (that is why praise comes before thanksgiving and art is metaphysically above prudence), so works of art are more essentially human than works of usefulness or even than works of kindness (hence the "Humanities").

These things being so, it is easy to understand the fascination of the modern architectural opportunity and its danger. Not for 300 years has architecture been so intellectually free, but neither, on the other hand, has it for 300 years been so lacking in support from high places. The highest service the enlightened architect can render is a service to shopkeepers and insurance societies. All other opportunities are denied to him.

The churches and public authorities are not hidebound by utilitarianism, but they are hidebound by the fetish of style and are devoid of courage. (I speak of England. In France and Germany and other parts of the Continent they dare to put up frankly modern churches—notably the church at Le Raincy, near Paris.)

The enlightened sculptor is in a worse predicament. There is no place for him on building—he is no longer a normal part of the building gang. He is dependent upon the connoisseur, and his place is now the museum.

I am not here to speak for sculptors, nor am I concerned to decry museums. My thesis is simply this: That architecture under modern conditions is rightly to be thought of as sculpture. Sculpture is no longer a thing applied—if you have money enough. The sculptor is no longer one of the people your architect naturally calls in. The only sculptor employed in building work is the architect himself. The building as a whole is a piece of sculpture, and any detail or part is a detail or a part of a piece of sculpture. The steel framework is precisely the armature; the stone or concrete is the modelled body.

You may say, "Yes, but that has always been so. Good architects and builders have always so regarded their job." That is true. But whereas in former times—before industrialism entirely dehumanised the workmen and divorced the artist from the building gang—the building as a whole was a work of sculpture and each individual part was also the work of responsible workmen, i.e., artists; now the architect is the one remaining artist engaged in building. The result is clear and yet few see it.

Imagine a sculptor who has carved a grand monumental figure of a woman. He might say to himself: Now, what it needs is a delicately carved necklace. Ha! the very thing to employ that dunderhead Brown to do—he's got no ideas of his own, he'll do just what I tell him, he's frightfully skilful and absolutely dull and mechanical. In fact, I'll carve the figure and I'll get the necklace done by machinery.

Is such a soliloquy likely?

Take another case the other way round.

Imagine a sculptor who has designed a very simple figure—so simple that it is patent of precise measurement. He might say: Well, anyone, even that dunderhead Brown, can do accurate measuring. I'll let Brown hack out the figure but I'll carve the necklace myself.

On the face of it that soliloquy is more possible—but even so, our sculptor might have doubts and say to himself: No, old Brown's careful measurement will probably be too careful, the thing will be so damned accurate that my pretty necklace will belong to another world. I'd better leave the figure plain or carve the whole thing myself.

Now, apply these things to the business of building. The architect cannot possibly build the whole thing himself—he is forced to employ a host of industrialised dunderheads. What, then, about necklaces—i.e., carved cornices, sculptured figures and what not? Why, leave them out.

But there is another sort of danger confronting the intelligent and enlightened modern architect. It is a modern form of the danger of Baroque—the making of buildings which, while purporting to be churches,

factories or what not, are really only phantasies. The same danger confronts the modern sculptor. He may, if by strange chance he should get such a commission, be asked to carve a crucifix for a church, and being immersed in the problems of "significant form" he may make a thing which, however beautiful it may be when seen simply as a lump of stone, is in no proper sense a crucifix at all. If the thing is to be a crucifix the nature of a crucifix must be treated with extreme respect. If it is to be a stone crucifix the nature of stone must also be treated with extreme respect. The two extremes must be combined; that is the golden rule.

So with building—if it is a factory, a water tower, a bridge, the nature of these things must not only not be lost sight of, it must be treated with extreme respect. If the building is of stone or concrete or iron the natures of those materials must be treated with extreme respect. Again, the extremes must be combined. And not only the nature of the building, the nature of its plan and construction also must be respected.

Some architects are so enamoured of what they call the vertical line—just as others are of what they call the horizontal line—that they will work in their precious vertical line whether or no. It is as though a painter who was enamoured of hair couldn't leave it out even in a painting of "My Julia's Leg." The citizens of London who, on account of the proximity of the Tower, insisted on the Tower Bridge being "Gothic," were only guilty of the same kind of foolishness.

The architect *to-day*, then, is in a position which is both extremely strong and extremely unfortunate. His opportunities are unsurpassed. The immensities of scale should lead him to sublimity. Facilities of construction in iron and concrete, with the gigantic lifting powers of modern cranes, give him remarkable opportunity to model vast and impressive sculptures; for the architect-sculptor is a modeller, not a carver—his act is plastic rather than glyptic. But he suffers from two misfortunes, the one spiritual the other material.

1. The occasion of his labour is without spiritual significance. I am not here to preach religion. I simply state it as a fact, that commerce (even heightened by dreams of empire and universal brotherhood) and domesticity (even without the degradation of birth control) are not powers that can move the mind of man to its highest, i.e., most characteristic expression.

2. On the material plane he suffers the misfortune of having no sensitiveness in his fingers—i.e., the men who do the work—his hands—are without feeling. What is measurable he can order and it will be done—what is not measurable—what depends upon the sensitiveness of the hand—he is entirely deprived of.

I repeat, I am not a social reformer or a preacher of religion. The artist must take things as they are. He is the realist *par excellence*.

I am not here to tell you what my job as a sculptor is under the circumstances. But being a sculptor, and architecture having become sculpture in a way entirely without precedent, I am able to speak to architects without presumption, and, paradoxical though it may seem, it seems to me irresistibly clear that the architect, to get the best out of his job, has now got to eschew not only all the old business of the styles of architecture—that was worn to nothing a century ago—not only all the old architectural “properties”—pillars and capitals, cornices, pediments and what nots—there is no one now to make them—he has got to eschew, resolutely, deliberately, all that has formerly been called sculpture.

Mass, proportion, scale, unity, light and shade and colour and all these things springing naturally out of the very nature of the thing to be made, these things are for the architect as for the sculptor, the very stuff of his job.

From the Pyramid of Cheops to the bare interior of Westminster Cathedral (before they ruined it with marbles and mosaics) beauty and sublimity in architecture have never been dependent upon carving and ornament.

To-day, when such things as carving and ornament are not to be obtained (save as the rare product of

individual artists whose connection with building is a mere fiction—a survival having no reality) it is more than necessary that architects should be independent of them.

This is no wail of despair. Facing the facts cannot be that.

On the contrary, it is essentially optimistic to suppose that the rule of reason can so far prevail.

It is simply unreasonable to bewail the present state of things.

Architects have got as good a chance of achieving purely architectural beauty as ever they have had, and if sculptors may legitimately grieve that building works no longer offer them opportunities worth having (and an architectural setting is the best opportunity for sculpture), even they may feel that the present state of things is not without its special advantages. A certain clarity, an increased disinterestedness, a certain emancipation is the prize of those who, cut off from the exigencies of utilitarianism and the need to placate the sentimentality of a mob fed on cinema and daily newspaper romance, pursue beauty as a hermit pursues sanctity.

There is one drawback to the plain building unadorned. That is, the man in the street doesn't like it.

But a wise artist is one who makes things people can like for the wrong reasons. Plain building is cheaper. Let the man in the street comfort himself with that.

## The Same Subject from an Architect's Point of View

BY A. TRYSTAN EDWARDS [A.].

An architect in commenting on Mr. Eric Gill's aphorisms will naturally be first inclined to express his pleasure that a sculptor of such eminence as he should have taken pains to indicate in the clearest possible language what he believes to be the true relationship between architecture and sculpture. Whether one agrees with Mr. Gill or not, one can at least be thankful that here is an artist who has faith in intellect and upholds its title to determine the functions of the arts.

Mr. Gill's title is itself provocative, and when one reads the phrase “Architecture as Sculpture” one naturally expects to be informed of some correspondence between the two arts, which had not been noticed before. He tells us that “the architect is free to consider his building precisely as a sculptor considers his piece of stone—as a thing in three dimensions known to him by means of light and shade and colour alone.” Yet this sentence relates merely to the physical means by which we become aware of the existence of a building or statue, and it does not describe or even suggest a spiritual affinity between them. The shape of *any* three-dimensional object

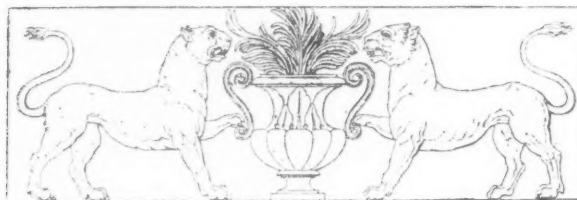
becomes known to us in the same way. It is in respect of the subject and form of a building and of a statue that a comparison needs to be made, and not only a comparison but a contrast. There is one essential distinction between architecture and sculpture which is not mentioned in Mr. Gill's argument, namely, that between a primary and secondary art. A building has no representational element in its subject, but a statue is a statue *of* something. It is important, of course, that it should be well composed and show intelligent conventionalisation, but it must call to our minds the human form, whether the work be a portrait bust or the most fantastic product of “modernist” sculpture. But a building has a measure of independence denied to sculpture and painting because it is a primary art.

While Mr. Eric Gill ignores one vital distinction between architecture and sculpture, he seeks to establish another distinction which, however, is irrelevant to the subject of art—the distinction between “the man who shapes a thing to his own liking with his own hands and the benevolent despot ordering the work of others.” The important thing is surely the *quality*

of the finished product. Yet Mr. Gill would have it that "the best modern buildings may, from a reasonable distance, appear to be very great and beautiful works, but 'close-ups' kill them," and this apparently "though the design, proportion and mass may be admirable." One may question the logic in the conjunction of terms, "design, proportion and mass," because "proportion" is part of design and its use in this context is tautological, and "mass" is one of those words that sound very learned and technical, but tell us nothing at all, for every building, whether good, bad, or indifferent, has mass. If the design of the building is admirable, the building cannot be dead, but, on the contrary, must be instinct with life; for good design indicates that the building not only serves its human purpose, but has the beauty which is expressed in that organic relationship of its parts by virtue of which it has a kinship with the products of animate nature. If artists can direct machines which will enable them more easily to mould objects to the shapes which they desire, so much the better, for it adds to their power and gives them more leisure to devote to the spiritual aspects of design.

Mr. Eric Gill complains that the modern architect suffers from the misfortune of having no sensitiveness in his fingers. But if architects have sensitiveness of the *mind*, it should suffice for their purpose. They might retort that besides the sensitiveness of the hand there appears to be the stupidity of the hand, of which, indeed, in many of the products of the "Arts and Crafts" movement there is the most painful evidence. Mr. Eric Gill argues that because architectural ornament can nowadays be cut by machinery and any ornament or architectural detail so cut or moulded must

in his opinion be dead, the architect is "set free from old shackles of building conventions—styles of architecture—'Orders'—and free from old architectural properties, pillars, porticoes, capitals, cornices, arcades, flutings, rustications, etc." Yet no architect, even on Mr. Gill's own showing, can escape the demands of reason, and the styles of architecture, which are themselves a grand treasury of reason applied to the forms of building, do not deserve to be dismissed in this contemptuous manner. It may be argued, of course, that there is need for a modern style, a new development of what is logical in the styles of the past, but such a style is not likely to be created by those for whom the logic of the Classic Order has no meaning. And ornament has been in the past, and must be in the future, an essential element in every living style, for it is one of the means of placing the correct emphasis on the several parts of a building and of relating those parts to each other. Thus Mr. Eric Gill's suggestion that modern buildings should be without ornament represents a counsel of despair. He is right in saying that "the man in the street" does not like the plain building unadorned. It so happens, however, that in many of his opinions the man in the street proves himself to be a very sensible person. The present predilection for lean, stark buildings represents but a passing Puritanical phase which has little philosophic backing. At best it is but "the architecture of protest." Ornament must be born again, and even sculptural ornament as applied to buildings. If the professional sculptors will not collaborate in this, then architects will set to and create the sculpture themselves. They will find it a very enjoyable task.



## The Gothic Revival\*

BY PROFESSOR A. HAMILTON THOMPSON, M.A., HON. D. LITT. (HON. ASSOCIATE R.I.B.A.)

The author of this brilliant and extremely diverting book warns us that it is not a critical valuation of Gothic Revival architecture. Its references to individual buildings, with one or two prominent exceptions, are incidental, and the work of the generation of architects which followed the days of Sir Gilbert Scott is expressly excluded from the survey. Mr. Clark sets himself to trace the influences which produced the movement, and to examine the principles on which its advocates relied, as it advanced to maturity. It divides itself naturally into two periods. Everybody can see the strongly marked difference between the Gothic of Strawberry Hill, of Wilkins' gateway at King's College, Cambridge, and the Commissioners' churches, and that of the reproductions of Early English and Decorated models which were turned out in hundreds during the Victorian period. The first is purely the outcome of picturesque sentiment, disguising the conventional construction of the day beneath a thin veneer of cusped panelling and ogee-headed niches, and breaking out into clumsy pinnacles: so far as the detail resembles mediæval work at all, it is a blurred impression of objects imperfectly seen. In the second, there is no doubt an undercurrent of sentimentality, which from time to time makes itself felt in works of real imagination; but the prevailing spirit is one of accurate imitation of mediæval construction and ornament, guided and checked by rules of correctness and uniformity as strict as those which had governed the architecture of a century earlier.

Although there is a continuous development from one of these types to the other, the impulses which directed their course are quite distinct. Mr. Clark labels them with the epithets "picturesque" and "ethical." No one would deny that the early renaissance of Gothic was stimulated by literary influences, by the tendency of poets to adorn their artificial demesnes with ruined abbeys and castles, and people their groves with hermits and gliding ghosts. Not even Pope himself was free from this temptation, and the allurements of the Middle Ages grew stronger as the century advanced. The habit of writing about ruins naturally prompted the desire to construct them or to graft their attractive features upon new buildings. Antiquarians, as Mr. Clark, perhaps not without design, will call them, delved into the history of the past and brought forth treasures, old, new, and often spurious, which excited the fancy of the country gentleman, eager to adapt his mansion to the mediæval taste. Of the part which Gray, with his genuine love and precocious knowledge of mediæval antiquity, and Walpole, whose vivacious intelligence turned with relish from its conventional grooves to historical anecdote and memorials of past greatness, played in the movement, Mr. Clark has much to say. The statement that any definition of the Romantic Movement "must suggest that the middle ages took the

place of classical times as an ideal in art and letters" (p. 76) is too sweeping. Of literature itself it is untrue, for the great romantic poets were as sensitive to classical as to mediæval influences, and the signal feature of their art is its catholic responsiveness to all forms of beauty. If architecture had followed the same line, the Gothic Revival would have been something different from what it became. But architecture had fallen, in an age of dim groping after romance, under the spell of the literary dilettante and the archaeologist, and its practitioners were singularly lacking in that free genius which might have led it into a path of spontaneous development.

The courses of architecture and literary art, in fact, find their point of divergence at the climax of the Romantic Movement, and architecture went its way poorer for their previous contact. It might be argued that no architectural movement is free from literary influence: the outbreak of Renaissance architecture in Italy was preceded by and owed much to the revival of classical scholarship. The misfortune of the Gothic Revival was that it began under the sway of a literary taste without serious aims, only half-aware of its discontent with accepted canons, uncertain, mannered and self-conscious. Its mediævalism was purely ornamental; but, by the close of the eighteenth century, the passion for Gothic ornament had fastened on architecture as ivy on a wall, and with the same results. It needed no impulse from Scott—Sir Walter, not Sir Gilbert—to ensure its success: the enthusiasm, indeed, which Scott felt and aroused for the Middle Ages owed more than it gave to the architectural taste of his day, and was haunted by dreams of Gothic buildings such as he realised in Abbotsford. The spirit that, about the turn of the century, presided over the erection of Fonthill, for which, as an example of romantic vision, Mr. Clark, like others of our younger writers, has some tenderness, required no further encouragement to essays in Gothic.

The Gothic taste of Strawberry Hill and Fonthill came into being without ecclesiastical prepossessions. It had no connection with the High Church Gothicism of the seventeenth century: Walpole's sham chapel at Strawberry Hill was a mere affectation. Archaeology innocent of theological bias nursed it into life. In selecting Gothic as a suitable medium for church architecture, the Commission of 1818 was moved by considerations of economy rather than tradition. The results of this decision showed clearly that the new Gothic was bankrupt of ideas. Divested of the genteel coquetties that had given Walpole's "frippery Gothic," to use Mr. Clark's phrase, a faded charm, its barrenness was revealed. The later phase of the revival was a reaction from its initial frivolity. The beginning of this phase coincided with the Oxford Movement. It was impelled by religious motives: to Pugin, intoxicated with the beauty of mediæval craftsmanship, to the zealots of the Cambridge Camden Society, intent upon the symbolic significance of religious art, Gothic archi-

\* *The Gothic Revival. An Essay in the History of Taste.* By Kenneth Clark. 8s. London, 1928. (Constable and Co.) £1 1s.

ture was Christian architecture, and they advocated it with the enthusiasm and intolerance of crusaders. The revival of its principles was pursued as a sacred duty, in obedience to the prompting of pious ideals of which it was seen first and foremost as the concrete expression. Gothic architecture stood for a system of Christian ethics, and for the Gothic enthusiast alone, with his simple faith, was there hope of salvation.

Mr. Clark's discussion of this phase and its representatives is the most interesting portion of his book, and is remarkably acute and entertaining. The fierce energy and propagandist zeal of Pugin, on whose decline into oblivion too much stress is laid, the dogmatism of the ecclesiologists who frightened Protestant suspicion into hostility, the comfortable espousal of Gothic by Sir Gilbert Scott, who reassured the public of its innocence, and the fatal partisanship of Ruskin, who came to bless, but relapsed into cursing, are treated in a succession of lively chapters. The Gothic Revival can hardly be said to have died under Ruskin's treacherous patronage; but with his defection the ethical tradition which identified good art with good morals was found wanting. Gothic could no longer maintain its lofty superiority against less highly principled competitors; its vaunted sincerity, contaminated by the destructive activity of church restorers and by the commercialism which readily produced lifeless copies of ancient models, became an exploded legend; and the impossibility of limiting architecture by rules invented from the suggestions of a form of art whose vitality was due to social and economic conditions of a very different kind from those of modern times, was conclusively demonstrated.

Yet, for all that, the Gothic Revival is a singularly engrossing chapter in the history of artistic taste, and Mr. Clark's frank criticism of its fundamental weaknesses does not detract from its interest. If it produced a great deal of bad and dull work, it also produced designs whose merits are independent of imitative forms and borrowed detail. It has given inspiration to more than one architect who has expressed his ideas freely and naturally in a Gothic accent, with abundant liveliness of imagination and fertility of invention. It is not difficult for an accomplished performer to take his place in the chorus led by Mr. Lytton Strachey and give his candid interpretation of the melodies which pleased Victorian ears; and Mr. Clark is an adept in the discovery of points which are open to amused criticism. His selections from the polemical effusions of the Cambridge Camden Society and from the *Reminiscences* of Sir Gilbert Scott are excellent material for the display of his wit. At the same time, he is seldom tempted into being unkind. He has set himself to show that the chief influences which determined the course of the Gothic Revival were strictly foreign to the art to which they were applied, and that their intrusion was a principal factor in damming the current of architectural progress. In the pursuit of his task, he is moderate and restrained. The conviction of the religious and moral values of Gothic which possessed the minds of Pugin and the ecclesiologists might have been of more permanent weight had it been more

tolerantly expressed; these thunders of the past lend themselves to our ridicule. Mr. Clark is conscious that to assert passionately or with unsparing satire that religion and morality have nothing to do with architecture is to err with the defenders of the opposite thesis, and to incur an equal charge of narrow and irrelevant dogmatism. Of the virtues of the Gothic Revival, its influence on sound construction and the impetus which it gave to the revival of vernacular architecture, he speaks discriminatingly in his epilogue, and his sense of the genius of Pugin as the true inspiration of its later phase survives his clear perception of the alien prejudices which Pugin imported into architectural theory.

We could wish that Mr. Clark had been more careful with his proofs, for his pages are marred by a considerable number of errors. Here and there we may detect slips of memory. The fame of Miss Bankhead (p. 40) has no doubt dazzled his eyes to the fact that the authoress of a work on *The Tale of Terror* is Miss Birkhead; he may not have noticed that Winchelsea (p. 27) is an incorrect version of the title of the Earls of Winchelsea; and the surname of the Earl of Bristol and Bishop of Derry, repeated twice on p. 109, is usually spelt Hervey, not Harvey. "Gutketch" (p. 30) and "Esdale" (p. 62) are probably printers' mistakes: so, we imagine, are the transpositions of letters in "Wincklemann" (p. 147) and "Sisely" (p. 150). The motto *Deo et Ecclesie*, quoted from the title-page of Dugdale's *Monasticon* (p. 22), is *Deo et Ecclesie*; and we have strong doubts of the Latinity of *sancta povertas* (p. 225). Without referring to Pugin's original text, we may question whether he wrote "the cope chests are filled with osphreyed bandekins" (p. 173). In addition to these and other small slips, we may note a few incautious statements. It would be difficult for anyone acquainted with the works of Palladio to discover any but the most rudimentary Palladianism in the second court of St. John's College, Oxford (p. 15). The doubt whether altars were used under Laud (p. 213) is answered by Lord Scudamore's restoration of the old stone altar at Dore in 1634; while there are existing parallels at Liddington in Rutland, Langley in Shropshire, and a few other places, to the arrangement of the old communion rails at Deerhurst (p. 226). It should be remembered that the word "folly" (p. 55), though its connection with *stultitia* is found as early as the thirteenth century, does not always imply the silliness of an infatuated owner: as in the case of the royal manor-house of Folly John, it may be derived from its builder's delight in a favourite situation, or, as Mr. Oswald Crawford suggested, a few years ago, from a local term familiar to mediæval hunters. But these are small points. The fact remains that Mr. Clark has written a wise book, full of witty and pregnant remarks, which will be of permanent service to the historian of taste. Though it is fully indexed, the system employed is anything but ideal; and, though the illustrations are well chosen, the plates of a mediæval and modern town from Pugin's *Contrasts* are reproduced faintly, and the reference numbers, except to the keenest eyes, are hardly discernible.

## Reviews

**BUILDING CRAFTSMANSHIP IN BRICK AND TILE AND IN STONE SLATES.** By Nathaniel Lloyd. Sm. 40. Camb. 1929. [Cambridge University Press.] 15s.

Mr. Nathaniel Lloyd is already well known to us for his admirable book on English brickwork. For that we owe him a debt of gratitude for a comprehensive study of the history of an interesting English craft.

In his latest book, *Building Craftsmanship in Brick and Tile and in Stone Slates* (Cambridge University Press), he is not concerned with the history of the crafts, but with the ways and means employed by the old builders to gain the effects which give so much charm to their use of these materials.

Mr. Lloyd is the right man to do this. He brings his powers of careful analysis and research to the business; moreover, he has the insight and taste and the eye to discriminate between what is excellent and what is commonplace—and he has the technical knowledge to expound perfectly clearly the exact methods employed to produce such and such an effect.

We all, architects and laymen alike, take delight in the old houses and cottages that are to be found up and down the country. The simple brick or stone built walls and tile or stone covered roofs seem very satisfying, but how few grasp the skill in craftsmanship, the right texture of material, the many little niceties of handling that go to make the whole just right instead of just wrong. It is the sum of all these that gives such charm. Nor is it readily recognised how the wrong colour of mortar, the bad pitching of the roof or the clumsy projection of string course, or oversailing course, can make just the same material look commonplace or vulgar.

The old craftsman was brought up from boyhood amid the material of his craft. He learned all the turns of his trade from his master, and he acquired a kind of instinct of right handling and an eye for what looked comfortable and happy in design. He was probably a master of several crafts; after doing the brickwork he would put on the tiles and do the paving and so on.

How differently to-day the boy approaches his job by the avenue of the elementary school and the trades union and apprenticeship to the speculative builder. Anyway, the result is that, left to himself, he will usually use his material in a vulgar manner, he will try to give machine-like precision where such precision only gives a loss of texture without any gain in efficiency, he will depend on the rule and square rather than on a trained eye, he will be concerned only with, say, the walling rather than having an interest in the house as a whole, and though he may be quite an efficient bricklayer, according to his lights, he will arrive at none of the subtleties, the sum of which delight us and from which we derive our pleasure in old buildings.

Now it is just these qualities that Mr. Lloyd has dissected. He shows just why and how the charm of craftsmanship was obtained. He deals with the points that are not to be found in any works on building construction, those subtle things where construction and design meet and where in simple buildings the construction, design

and craftsmanship must go hand in hand either to the perfecting or to the murdering of the design as a whole.

The book is most admirably illustrated with excellent photographs that show in the clearest manner every point of constructive detail, texture, or design with which the book deals. Close up pictures at various stages of a piece of work are given to illustrate the points of workmanship, and Mr. Lloyd has not forgotten to show us bad examples as well as good—the ways he considers things should not be done as well as the ways he approves.

Criticism might be made that some few of the methods suggested are a little forced and savour rather of faking to make the work look like old. That phase, I am glad to say, has passed from the best in modern architecture and certainly should not be encouraged, but as a rule Mr. Lloyd's fine taste and common sense avoid such pitfalls, and usually he lays his finger exactly on the method of honest construction and use of material that go to practical building with a real rightness of appearance.

As an examiner in design at the Royal Institute, I know how few of the students who come up for examination can, for instance, design a house roof so that it sits comfortably on the walls. They, no doubt, each and all, would approve Mr. Lloyd's examples of Sussex roofs. They see the outward form but not the anatomy, they have not the eyes or insight to see what goes to making those roofs so comfortable or "how it is done." One and all, they should not only read this book but should, from that reading, learn to get to the core of any building that gives them pleasure and be able to grasp just what elements of construction or workmanship produce such and such an effect. They would be the better equipped to instruct the builder in that side of his art that to-day he lacks, and without which the architect's design will be tame and lifeless.

Everyone, architect, builder and layman will probably find his eyes opened by studying this book.

OSWALD P. MILNE [F.].

**ARCHITECTURAL ANTIQUITIES OF SUFFOLK, DRAWN AND ETCHED BY HENRY DAVY.** Fo. Southwold. 1827.

It may not be generally known that the R.I.B.A. has one of the finest architectural libraries in the world and that it is particularly rich in its collection of old and valuable books. But even so there are still gaps to be filled, and it has ever been the practice of successive Literature Committees to acquire such works that are lacking, as opportunity arises, and when their cost is reasonable. Such a book is Henry Davy's *Architectural Antiquities of Suffolk*, published by the author from Southwold in 1827.

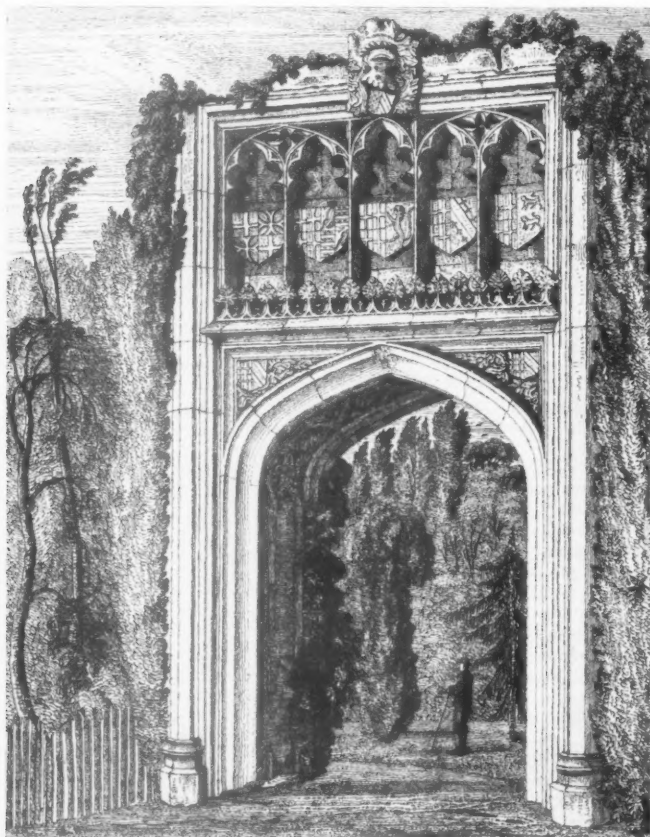
The complete series of etchings by Davy—who, by the way, was a pupil of Cotman—is seldom now to be found in book form. These more often have been dismembered for more profitable sale of the individual etchings, as so frequently happens with books of this kind.

The plates, besides having a value as contemporary records, have a beauty of their own, but of even greater importance are those of architecture that has disappeared. A case in point is the "Gateway, Parham Hall" (see reproduction on next page), a photograph of which appeared in the Annual Report of the Society for the Protection of Ancient Buildings, as recently as 1926, with the mournful

announcement beneath it that this fine example of fifteenth-century stonework had lately been exported to the U.S.A.!

There are six plates of Beccles Church. One of the best is No. 37, entitled "Ornaments, east end of Beccles Church." Of this Davy, in his "Historical Index," at the end of the book, remarks: "... The panelling below of black flints in freestone has a handsome appearance. ..."

Perhaps the most informative of several subjects from Bury St. Edmunds are two views of "St. James's Tower"—now more generally known as the Norman Tower—a detached building standing near the towerless fifteenth-century cathedral church of St. James, for which it serves as a tower. Seventy or eighty years ago the ground level was just as Davy shows



*Drawn, etched and published by H. Davy, 1823*

GATEWAY, PARHAM HALL, SUFFOLK

*From the Architectural Antiquities of Suffolk*

It certainly has. It is a particularly happy example of this very characteristic East Anglian knapped flint inlay work. The artist-author mentions that the arms in one of the stone panels are those of Bury Abbey [i.e., of course, Bury St. Edmunds].

The "Gatehouse of West Stow Hall" (circa 1520-1533), drawn and etched in 1822, shows at its apex a clock-face akin to that of St. James's Palace. This eighteenth-century embellishment has long since disappeared, but we are indebted to the indefatigable Davy for thus recording a little-known fact.

it, but at the present time the ground beneath the archway, and immediately around the Tower, has been lowered to its original level, evidently to expose the base moulds, etc. The building, now surrounded by necessary railings, has an uncomfortable appearance of having sunk. Traffic can therefore no longer pass through it.

These references to the contents will suffice to indicate the topographical value of this book and to justify—if justification were needed—the modest expenditure of thirty-five shillings for its purchase.

B. O.

ETON COLLEGE. By Christopher Hussey. 2nd ed. 40. Lond. 1929. [*Country Life*.] £1 5s.

This work deals only with the ancient buildings of the College—School Yard, Chapel, Hall, Library and Provost's Lodge. The evolution of these is described as lucidly as words permit, but a plan would have been of the greatest assistance. To say that the illustrations have appeared in *Country Life* gives some measure of their quality. Inevitably, in thinking of Eton, one's thoughts turn to the chapel first, and Mr. Hussey has dealt with this in considerable detail. We learn that until its completion the collegians used the old parish church for their daily services; that between 1441 and 1448 Henry VI built and demolished the first chapel because his ideas had enlarged; that the new chapel was built 13 feet above the ground because of floods; and that Caen stone was used at first, "but when the supply for some reason ceased" stone from Yorkshire and Oxfordshire was substituted. Also that the new choir represents but half of Henry's scheme, as he projected a nave 168 feet long, for which the present ante-chapel is a poor substitute. Is it not likely that flooding was one of the reasons for wasting seven years' work on the first chapel, and that our war with France held up the supply of Caen stone?

The story of the paintings on the walls of the chapel affords interesting evidence of the changing outlook of successive generations. When first executed in the fifteenth century they reflected the beliefs of that age and were doubtless admired. Less than a hundred years pass and the college barber is ordered to obliterate them with whitewash, because the miracles of the virgin and other incidents represented are regarded as superstitious. Rediscovered in 1847, they are once more covered up because the Provost considers them unsuited to the scholars and the use of the chapel. Prince Albert endeavours to secure that some arrangement of hinged panels should afford students of mediaeval art an opportunity of studying the paintings, but unsuccessfully. After seventy years they are again uncovered. And now Mr. Hussey writes: "The chapel paintings, though grievously damaged, are of a high order of beauty, and of a peculiarly English beauty. Whether he wants to or no, every Etonian is now compelled to stare at this beauty for many hours during the last year or two of his career. I am convinced that the pure, gentle rhythm of these paintings will make a lasting impression on his memory, and will help to make him responsive, for the rest of his life, to beauty when he sees it."

F. H. M.

#### NOTES ON SOME RECENT FOREIGN PERIODICALS.

By GRAHAME B. TUBBS A.J.

The June number of the *American Architect* opens with an account of "an architectural pilgrimage" to the Eastern Tombs of the Manchu Emperors, which are reached from Pekin only by a difficult three days' walk. The Tombs go back to an early period, but include modern buildings such as that prepared by the late Empress Dowager to contain her own remains. Mr. Paul Sabine contributes a useful paper on the sound absorption co-

efficients of materials for architectural acoustics; he describes experiments carried out at the Riverbank Laboratories which were intended to check Professor Sabine's original experiments, with modern apparatus, and to obtain more exact data; the article emphasises the need for standard methods of measuring reverberation, as at present two distinct systems are in use. In the June number of *Architecture* (New York), the American Bank and Trust Company's Building at Philadelphia, which received a Gold Medal, is illustrated; this is a good design which might perhaps be described as modernist-classic. There is also a very interesting scheme for a house, suitable for mass production, by Mr. Fuller; it consists of a central mast of duralumin (containing all the service and waste-pipes) from which the floors are suspended on steel wires. The actual walls are to be of two thicknesses of some substance such as casine, enclosing a vacuum; the ground floor is used for garage purposes only. In the following month's issue the Building School at Dessau, Germany, which is directed by Professor Gropius, is described both as to its methods and to the building in which it is housed. This is a most interesting institution where all designs are considered from their most utilitarian and scientific aspects, extraneous ornament being strictly "taboo"; very interesting results are obtained. This issue also illustrates a fine brick and stone mansion in the colonial manner by Frederick Frost, as well as Sir Giles Gilbert Scott's house in London. The *Architects' Portfolio*, a classified collection of photographs, for this month deals with quoins and that of the previous month with garden pools. In the June number of *Pencil Points* is the continuation of the report on the investigation into architects' "Production Costs," and there are printed a number of tables, based on a large number of actual examples, in which the cost to the architect of the various types of buildings are given. These are rather interesting, and show clearly that in certain buildings, such as residences and churches, the greater the cost of the building, the greater the relative cost to the architect, owing to the more elaborate details required. The June number of the *Architectural Forum* is a reference number on shops and stores; it might appropriately have been called "French Shops and their Reflection in America." Mr. Eberlein contributes an article on shops in country towns, including many examples of English work of the eighteenth and nineteenth centuries. In the July number of this magazine the Chase National Bank Building, New York, is given. This is interesting, as it shows high achievement in face of great complications due to the L-shaped site and the exigencies of the Zoning Law; the rest of the number is given up to examples of modern German architecture. The June number of the *California Arts and Architecture* illustrates the large building of the Claremont Country Club at Oakland. It is in the English half-timbered manner, which is, however, not very successfully adapted. The June number of the *Bulletin of the Beaux-Arts Institute of Design* contains designs for a monument to aviation, near an airport; the monument was to be kept low and to embody a shaft of light to act as a beacon, and some very interesting solutions were produced. The Canadian magazine, *Construction*, for June has an article which would appear to be the outcome of a controversy as to the best method of bringing about a new town plan for

Toronto, while the *Journal of the Royal Architectural Institute of Canada* contains illustrations of a new swimming bath at Montreal, the Imperial Bank Building at Toronto and the Terminal Building at Montreal. Professor Ramsay Traquair continues his series of articles on the old village churches of Quebec. The present example is the Church of St. Jean, Island of Orleans.

Coming to the Continental magazines, *La Construction Moderne* for 14 July makes a feature of l'Hotel du Pin Doré at Juan-les-Pins, which one imagines must have been intended as an architectural joke, but if this is so the jest is in rather poor taste. In the issue for 30 June there is a review of the Exhibition of the *Salon des Artistes Decorateurs*. The illustrations emphasise the fact that it is in this direction rather than in architecture proper that the French are doing their best work to-day. In the June number of *l'Architecture* the architecture of the Salon itself is reviewed with many illustrations of contemporary French architecture and a number of architectural studies. The Belgian paper *l'Emulation* for April illustrates the premiated designs in the important competition for the residence of the Governor of the Belgian Congo at Kinshasa, with the necessary offices and accommodation for distinguished guests. The winning design by M. Moenart is in a style which is a blending of the moorish and classic. *Arkitekten*, the Copenhagen magazine, which is so beautifully printed and arranged, gives up the whole of the June number to new Danish churches. Most of them follow the local tradition and have towers, rectangular on plan, roofed with plain gables, the ridge running the short way. Most of them are simply treated with plaster inside and out, but some have the characteristic stepped gables and fleches, the gable-ends being ornamented with vertical recesses. The Dutch paper *Architectura* for 15 June illustrates a thatched golf club house at Aerdenhout, while that for 29 June contains rather a charming school at Rotterdam with pantile roof, parapets and gables. The July issue of *Innen Dekoration* is mostly concerned with Herr Otto Firlé's work, which is characterised by a simple wall treatment and thoughtfully-designed fittings for electric lights, radiators and built-in furniture. The July *Wasmuths Monats Hefte für Baukunst* gives a résumé in small scale photographs of the work of Hans Poelzig, also houses by the brothers Gerson of Hamburg and a house at Potsdam which are in the style of the eighteenth century and contrast sharply with Poelzig's modernism. The Cuban *Arquitecto* for May is an extra large issue and makes a feature of the new Capitol at Havana which was recently built to take the place of the one that was destroyed by fire. The building follows the usual type of American State Capitols with a characteristic dome and has the two Chambers at the extreme ends of the plan. It is interesting to notice that the whole of the furniture and fittings were made by a well-known English firm. In the Spanish *Arquitectura* for May the Benedictine monasteries of Galicia, dating from the twelfth to the seventeenth century, are illustrated and form an interesting collection.

## Correspondence

### CONTROL OF ELEVATIONS.

Notwich Union Chambers,  
Congreve Street,  
Birmingham.  
26 September 1929.

To the Editor, JOURNAL, R.I.B.A.,—

SIR,—I have read Professor Abercrombie's letter in the JOURNAL of 21 September, and regret that he should have any cause of complaint with my paper on "Control of Elevations" read at the York Conference. I agree that the C.P.R.E. should have been given more than a passing reference to its work, and I did not fail to apologise in my paper for the incomplete character of its reference, due to the paper being written abroad, with few references available.

The records of the C.P.R.E. will, of course, be indispensable in framing a policy of control for rural areas, and the opinion of the Council will naturally be sought by the Special Committee of the R.I.B.A. to which this matter has been referred.

There are several inferences and charges in the Professor's letter which I do not understand. I do not know, for instance, why I should be thought out of sympathy with the work of the C.P.R.E. and the control of elevations by means of Advisory Committees, nor why I should be horrified by general precepts on elementary design in building. Can the latter be said of any public lecturer on architectural design?

There is, of course, only one real difference between Professor Abercrombie and myself, and that lies in our respective estimates of the machinery provided for operating the "Bath and Model Clauses in Town Planning Schemes for the Control of Elevations." We agree that there should be control of elevations, but we do not agree upon the method of applying this control. I agree that "the Advisory Committee should only be used as a last resort when powers of persuasion have failed," but not that the Local Authority should do the preliminary judging and persuading. In my opinion this work is best done by honorary professional service, and, oddly enough, the only good results in Bath referred to in the Professor's letter are credited to local architects, and not to the machinery legally provided.

In brief, my objection to the Bath and Model Clauses centres upon the incompetency of a Local Authority or its officers for the duty of adjudication of architectural design, and I see very grave danger to architectural progress in bringing architecture under the control of Local Authorities. If Professor Abercrombie can demonstrate that the powers conferred by the Clauses in question are incapable of the construction that I have put upon them, I am very willing to be convinced.—Yours truly,

WILLIAM HAYWOOD [F.].

## INIGO JONES AND PALLADIO.

All students of Inigo Jones and his works are aware that in Worcester College Library at Oxford there is a considerable collection of books which formed part of his library, as well as original drawings and sketches by that great architect and artist. Probably the most familiar book to students in this collection is the copy of Andrea Palladio's *I Quattro Libri dell' Architettura*, 1601 edition, which contains marginal commentaries and sketches on the text by Inigo Jones, who obviously consulted Palladio's text when he visited Italy for the first time, which may have been in 1601. These marginal notes have been the object of study of many who have visited Oxford for the purpose. At the beginning of last year Mr. J. Alfred Gotch, whose position as an authority on Jones is well known to all students of architecture, brought before the Literature Committee of the R.I.B.A. the suggestion that the marginal notes in the Palladio volume should be transcribed, the cost of which was estimated at £50. In view of the desirability of having a copy of these notes in the R.I.B.A. Library, the committee recommended the purchase of the typescript. This was ultimately effected, the R.I.B.A. Council contributing £25, Worcester College £10, Mr. J. Alfred Gotch £10, and Mr. Sydney Kitson (*Hon. Sec. R.I.B.A.*) £5. It is desirable thus to place on record for future reference the names of those who so generously contributed to the purchase of this valuable document for the use of the R.I.B.A. Library. It is also desirable that it should be generally known to members of the R.I.B.A. and to others who use the Library that this typescript is now available for readers desiring to consult it. Copies of the typescript are also available at Worcester College, Oxford, and at the University Library, Cambridge. R. D.

## R.I.B.A. AMERICAN TOUR.

The visit of a small party of British architects to the United States and Canada in July last was a most successful one, and although organised by the R.I.B.A. was of quite an informal character.

The following cities were visited: New York, Washington, Detroit, Niagara, Toronto, Montreal and Quebec.

Many buildings were inspected, often under the guidance of the architect, and the whole tour was most interesting and instructive.

The arrangements made by the Cunard Steamship Company for the comfort of the party were excellent, but the outstanding feature was the kindness and hospitality shown to the visitors by their professional brethren in America and Canada. The luncheon given by Mr. W. A. Delano, the President of the New York Chapter, and the dinner at the Royal Canadian Yacht Club at Toronto by Mr. Chapman, were both delightful and charming little functions, but apart from that, nothing could have exceeded the kindness shown to the visitors by the American and Canadian architects in every town they visited.

The party returned to England with a high opinion

of the work now being carried out across the water and a warm personal regard for the authors of that work.

It is hoped that the success of this trip will lead to the next one being more largely attended and more representative of the Institute. PERCY THOMAS [F].

During their brief visit of three days in New York, William A. Delano, President of the New York Chapter of the American Institute of Architects, entertained the visiting British architects at a small and informal luncheon at the Century Club. This sociable and delightful occasion gave an opportunity to a number of New York architects to meet and exchange ideas with this group of interesting and prominent British architects. The group consisted of Percy Thomas, Victor Wilkins, D. M. Laird, S. W. Davis, Laidlaw Smith, H. B. S. Gibbs, J. Gibson, and J. Parnie Dansken, vice-president of the Faculty of Surveyors of Scotland.

It is sincerely to be wished that such meetings of British and American architects could occur more frequently. They would tend to produce a better understanding and a mutual appreciation and esteem and interchange of ideas between men who practise architecture on the opposite shores of the Atlantic.—*From the "Architectural Forum," Part I, September, 1929.*

## EXHIBITION OF SVEND HAMMERSHOJ'S WORK IN THE R.I.B.A. GALLERIES.

The Exhibition arranged by the Anglo-Danish Society in the Institute Galleries at the beginning of October possessed a refreshing quality of repose.

The exhibition, charmingly arranged, was devoted to the paintings of Svend Hammershoj and pottery and silversmiths' work from his designs.

The paintings show this sensitive artist preoccupied with the tonal values of ancient stonework, the luminosity of the sky and the tracery of bare branches seen against it.

Whether in Copenhagen or in Oxford, these are the subjects that intrigue him, and to which he brings sympathy and devotion. These are to him all sufficient and he does not fail to convey to us the charm and satisfaction that he has experienced.

The pottery from his designs and the kiln of Herman A. Kahler shows strong and distinguished form and subtle colour with delicate relief; the silver wrought by Holger Kyser possesses the same qualities of design and shows high technical finish.

The whole is based on that reverence for nature and the inspiration that is to be derived from the inherent qualities of materials characteristic of a great tradition.

T. LAWRENCE DALE [F].

## CHRISTIAN ART IN IRELAND.

An Academy of Christian Art has been established in Ireland; Count G. N. Plunkett, Hon. Associate R.I.B.A., is President, and Professor Arthur Clery, LL.D., is Vice-President. There are three honorary secretaries—for Modern Languages (Professor W. Stockley), for Gaelic (Mrs. G. O. Plunkett), and for Greek and Latin (Mr. Eamonn Enright). The Academy's temporary offices are in 40, Elgin Road, Dublin.

## The Late Sir Robert Lorimer

BY PERCY E. NOBBS [F.], M.A. (PROFESSOR IN CHARGE OF DESIGN, MCGILL UNIVERSITY)

By the death of Sir Robert Lorimer, LL.D., R.S.A., A.R.A., the Royal Incorporation of Scottish Architects has lost a notable President; Scotland has lost a most distinguished son, whose work was racy of a soil which has ever been even more fertile in the things of the spirit than in the nourishment of the body; our profession throughout the English-speaking world has lost a brilliant exemplar, and all who understand beauty in builded stone throughout this modern world of brick and steel and concrete, are the poorer. He ever gave of his best, and had the kind of blessed mind to which the very notion of letting anything out of the office till it was as good as he could make it was inconceivable. So, one may be allowed to apply to him the happy phrases William Morris employed in that superb eulogy of the spirit of Mediaeval Art in England, which begins with the immortal lines: "The land is a little land, sirs," and, speaking of the art thereof, closes with the words: "and at its best it had an inventiveness, an individuality, that grander styles have never overpassed. Its best, too, and that was in its very heart, was given as freely to the yeoman's house and the humble village church as to the lord's palace or the mighty cathedral; never coarse, though often rude enough, sweet, natural and unaffected . . . it must be a hard heart, I think, that does not love it, whether a man was born among it, like ourselves, or has come wonderingly on its simplicity from all the grandeur over seas."

Sir Robert was a pupil of Doctor (later Sir) Rowand Anderson in Edinburgh, and then in London of G. F. Bodley, whose work he was wont to refer to as "the fullest flower of the Gothic Revival." He began his practice in Edinburgh in the 'nineties, in a "milieu" in which the word "academic" carried a sinister interpretation. In these days of self-determination it is difficult to apply the words ardent nationalist without conveying the idea of a certain blatancy. Sir Robert was an ardent nationalist, but there was nothing blatant about him, or his outlook on art and life. A past master in the fine art of living, as life can be lived in bonnie Scotland, it was given to him to materialise in building the very essence of the Scottish spirit as it had not been done since the days of Mary Stuart, Queen of Scots. And this was all the more remarkable in that he came after a generation of archaeological barbarians had been making play with what they were pleased to call the Scots Baronial Style. It remained for him to charm the merry mason and the skilful carver away from harsh snapped rubble, and Jacobean strap work, to textured walls and playful heraldries. He carried his preference for the obdurate turns of the leaf of the Scottish thistle to the point of detesting the

slick twirls of Italianate acanthus, and, on occasion, he would urge a pupil to abjure for ever all swags and amorini; this, at a time when the museums of the country were being flooded with the dulcet banalities of the "cinque cento." His instinct was ever strong to adorn construction, and never did he, no matter what the temptation, construct adornments.

Sir Robert Lorimer was happy in his practice, which was chiefly an affair of country houses, and largely concerned in the most sympathetic restorations which ever a man achieved. His works grow out of their usually lovely environments. Bold in invention and ingenuity, the problems of modern construction did not happen his way. One wishes that they had, or that some commissions on the grander scale in frequented places had fallen to his lot. Original and individual always—so far back as the year 1900 his office had coined the word "Lorimerian"—he had had a wide influence far beyond the bounds of the Northern Kingdom, and among the hosts of his imitators not all have caught the spirit of the master.

His death, like that of Bertram Grosvenor Goodhue—who, by the way, had the greatest admiration for him—cuts short a career from which, in the ordinary course, much more to gladden and inspire the hearts of men might have been expected. Like Goodhue, he leaves a gap that can hardly be filled, and a reputation in the first rank of artists; the last of the great Romantics, with a name to put beside that of Philip Webb and Norman Shaw. Like these, a revivalist; like these, a modernist; it was given to him, as to them, to leave the land he loved so well more beautiful in a thousand places than he found it. Happily, in these later years, he enjoyed in good measure that public appreciation so often withheld until too late from those "who sailed and fought, and ruled, and loved, and made our world."

In the Thistle Chapel at St. Giles', and in the Scottish National War Memorial on the Castle Rock in Edinburgh, we have two readily accessible examples of the art of "Robin" Lorimer, both on a diminutive scale, and of kindred purpose. But to see him at the full height of original achievement in composition of counterposed masses, contrasted ridges, broad surfaces, varied gablets, bleak walls and intimate irregularities, one must seek among the glens and the moors and the lochs and the haugh lands, where the most comfortable houses imaginable, great or small, proclaim in pride and honesty their natural pedigrees, traced to the keeps and the castles and the cottages that preceded them down the centuries in these stern but kindly environments, where the hard fighting Scottish gentry and hinds have been and are—and may they long continue to be—bred in gentleness and valour.

## The Spread of Ugliness\*

BY THE DEAN OF MANCHESTER.

England awakens slowly to the shame of destroying her ancient and traditional beauties. Crusades are stirring against litter and fumes and smoke; against ugly sounds, ugly posters, staring petrol pumps, and the hideous houses which struggle in unseemly disarray along our turnpike roads. Irreparable damage has been done; and the ruin spreads apace. What can stay it?

The task is greater than some think, and I look in vain for a proper appreciation of the roots of the disease. For I venture to suggest that we concern ourselves too exclusively with the symptoms and neglect the cause. In other fields we are wiser. We cease to attack the malarial mosquito in the house; we smother its eggs in the swamp. And it is high time that we carried our main attack, not against the symptoms of destructive vulgarity in the countryside, but against its breeding ground in the industrial town. For times have changed. The currents of life have been reversed. No longer is the flow from the country to the town. It is the town which spills itself and its citizens far and wide across the countryside. Standards of degraded taste born in industrial areas are setting their stamp upon England. And it is in these areas that we must begin to apply our remedies.

And it is largely true that the prime responsibility for these standards lies outside the industrial areas themselves. None of the great industrialists, for instance, is my own near neighbour, though I live in the heart of the greatest industrial area in the world. The men who control industry live far afield. Take a typical case. I spoke a while ago with the owner of a lovely parkland in the heart of rural England. He and his fellows complained bitterly of the noise and litter of the charabanc; and with deeper bitterness of the cheap car and the bungalow which accompanies it. And yet few are more responsible, though unwittingly, for these vulgarities than that particular man. He is the owner of a Lancashire cotton mill. Unlike a neighbouring mill-owner, who has actually made profit by eliminating smoke, his chimneys pour volumes of filth into the naked air. I see his operatives issue from the stark mill to the soulless rows of cottages standing in a blighted and desolate waste.

But that is not all. I see something more than that, for I live and work among people like these. I see their hunger for a beauty they but little understand. Sometimes it is a hunger which drives them to the summer charabanc trip; at other times to hoard away their savings until they, too, can acquire a road-side garage and a petrol pump, or a red-roofed bungalow on a country highway where the costs are low. Bungalow and site alike offend us. They are sheer loveliness to them. And properly so. We must estimate them in the light of their long environment. Desolate surroundings in their youth and manhood have killed the Englishman's heritage of chaste colour and form and the grave dignity of common life. Nine motorists out of ten, if they bluntly speak their mind, regard with sheer indifference this outcry against petrol pumps and

bungalows. They are form-blind and colour-blind in this regard; though, thank God, they still crave for flowers and sunlight and the breezy air.

Hence my plea that the problem of the countryside must be solved in the industrial town. And no easy solution will suffice. Drilling small children to pick up litter, and respect a beauty they seldom see, though useful in itself, is of small avail. We must surround them all their lives, in home and school and factory, with a beauty which is worthy of their pride and care.

And it can be done. Other lands are doing it. And doing it with startling thoroughness and rapidity. Nothing strikes the visitor from Lancashire more strangely when abroad than the beauty and seemliness of the new industrial surroundings in Holland and Austria, in Germany, and in the Scandinavian lands. No fallacy is greater than that which equates efficiency with ugliness. What firm, to take one striking instance, is more efficient in world-wide enterprise than the Swedish Match Factory? And yet its offices are a thing of surpassing loveliness. They lie grouped around a chaste courtyard whose walls are open to the sun; snowy white up above and pale green marble down below. You enter the courtyard through iron gates of splendid craftsmanship, and before you in the centre stands Carl Milles's lovely fountain surmounted by a charming emerald-green Diana poised upon a lofty pedestal, startling the graceful forest beasts in the corners of the court. It is an exquisite creation. Beauty and efficiency go hand in hand and the clerks in that office at least breathe the very air of refinement, and they know it.

And so we might wander on through Odelberg's pottery works and contrast them with the towns of Staffordshire; or through the steel and mining areas of Sweden and Germany, and contrast these in their present state with the days when they, too, were foul as many a steel and coal-producing town is foul in England to-day.

The thing can be done. Progressive men are attempting sporadically to do it here as in other lands. And there is no hope besides. The fate of the English countryside depends upon it. The day has gone by when a heedless man can amass a fortune and escape from the waste he has created. We are too closely knit to-day. Vulgarity pursues him. The very works pursue him. Road transit has set them free to roam and settle where they will. Time and again, as I motor to the southern ports, I see being reproduced in their early stages the very elements which make Lancashire so dismal. We must wrestle with the evil at its source in the old industrial centres and the new. Industry itself must be beautified. Public opinion can do much. The law can do much. Sweden gives her railways a term of years and then all must be swift and clean as the electric line between Stockholm and Gothenburg. New York forbids soft coal to be burned within her city boundaries. And an enlightened community in England can never surely be long content with the last pitifully inadequate Smoke Abatement Bill. Compulsion in this matter will doubtless lead to the wide reaping of the economies which progressive firms have already enjoyed. We shall see again re-

\* From *The Times*, 9 October 1929.

peated the experience of the firm which subsists to-day mainly on profits from the effluent whose elimination, it urged to a resolute Government, would compass its ruin.

But we need something more than law. We need enlightened goodwill and a real understanding of the issues involved. We need a wholehearted ambition among our English industrialists to emulate the best European practice and even to set a lead in tidying up and ennobling industrial surroundings. It is no ill-moment to choose Manchester, lying as it does at the heart of the world's greatest industrial area, for the second National Conference for the Preservation of the Countryside.

Mr. Samuel Courtauld in replying to the Dean of Manchester's letter in *The Times* of 16 October said:—

The Dean of Manchester has rightly named employers and controllers of industry as persons ultimately responsible; but we must go farther and ask "who are the real controllers and employers?"

It is hardly thinkable to-day that any owner of a private business who takes a pride in his life's work will tolerate conditions in that business which are a crying personal reproach; the great majority of industrial establishments, however, belong to joint stock companies, and, rightly or wrongly, the hands of the executives are fettered. The business man's code of ethics may be generally faulty, but here it is rigid. The theory is that directors are paid by shareholders to make profits; not to spend them. They may and should take long views, but they have no mandate to spend shareholders' money on objects which are not demonstrably likely to be profitable, or which can only be called so by an act of faith: they must not pursue personal ideals and satisfactions; shareholders claim the right to do that individually with their own money. Possibly some boards of directors are unduly timid, and undoubtedly many are indifferent, but broadly speaking they will hardly move from their present position unless public opinion is at their back, and this will never be effective in such matters if the individuals composing the public turn tail the moment their own pockets are involved.

As between shareholders and directors, so it is between electors and public bodies of all kinds, not excepting Parliament and the national executive. These bodies have even greater responsibility than directors of private industry, but where beauty and ugliness are in question one looks in vain for any breadth of vision. The moment the sacred principle of financial advantage is invoked every other consideration ceases to exist. Worse still, the very appeals to this principle are not properly scrutinized; our representatives are hypnotized by it and helpless in the hands of their experts, whose special pleadings, if disinterested, are usually biased and based upon short and narrow views.

It appears then to me that it is investors in particular and electors in general who must be educated for the struggle against ugliness, and here, Sir, you and your colleagues hold the chief power to-day. With few exceptions our leaders in the Press, as in political life, seem to be overawed by the vague tyranny of unchallenged financial and commercial values. We await the day when Beauty

may sway the result of elections, or claim of right the utmost deference from organs of public opinion, instead of being kept discreetly in the background like a doubtful guest, or, at the best, introduced with apologies. Meanwhile, the Dean's striking words, "Beauty and efficiency go hand in hand," might well be set up in every board-room and managerial office in the country.

#### A NEW GUIDE BOOK TO ST. ALBANS.

The Design and Industries Association, in issuing a *Cautionary Guide to St. Albans*, are to be congratulated in supporting the aims and objects of the Council for the Preservation of Rural England. No guide book could have carried this out more effectively; and it is to be hoped that many guides on similar lines will be issued, because the humorous treatment adequately enough shows the tragic display of artistic incompetence and lack of taste that is the most deplorable feature of most of our beautiful and ancient towns and villages of England to-day. The contrasts in the photographs of St. Albans and the district, with their humorous captions, are in themselves the most severe criticism that could be devoted to the lack of foresight of the local governing bodies who are blind to the beauty that lies within their sphere of control. Mr. Clough Williams-Ellis writes an appropriate introduction to the Guide, and indicates the spirit with which it has been undertaken and so well produced.

#### MR. E. H. NEW'S LATEST PRINT.

It is always of general artistic interest to know when Mr. E. H. New has published a new print. It is announced that he has just issued the twenty-second print of his New Loggan series of the Oxford Colleges, a comprehensive bird's-eye view of Keble College, and in this, as in most of his other prints, the whole group of buildings can be seen at a glance. Mr. New's work is as meticulous and as exquisitely delineated as in his previous drawings, and will be welcomed by all collectors of his work, in which the artist's devotion to his subject is expressed by the accuracy and beauty of its treatment. This drawing, which has been reproduced as a photo-etching by Mr. Emery Walker, has just been added to the collection of Mr. New's prints in the R.I.B.A. Library, and can be purchased from Mr. New at 17, Worcester Place, Oxford, or from the art dealers. The price is 25s., postage extra.

#### HOSPITAL PLANNING.

It will interest members of the Institute and all students of hospital planning to know that the authoritative paper on English Hospital Planning which was read before the Institute on 27 May by Mr. H. Percy Adams [F.], and subsequently published in two parts in the *JOURNALS* Nos. 15 and 16 of the current year, has now been published in pamphlet form and can be purchased at the offices of the R.I.B.A. (4s.). The pamphlet contains 108 plans of various hospitals in the text.

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## Electrical Installation

SOME NOTES ON ELECTRICAL INSTALLATIONS TAKING CURRENT FROM PUBLIC MAINS.

BY P. J. AND J. M. WALDRAM, B.Sc.

**A**RISING out of an enquiry as to the precautions necessary in wiring when supply voltage is raised under bulk supply schemes, the following notes were prepared for the Journal at the request of the Science Standing Committee as indicating matters with regard to electrical installations upon which it was desirable that architects should be adequately informed.

The architect, as the ruling and co-ordinating head of all trades and crafts engaged on buildings and their equipment, cannot escape some degree of responsibility with regard to electrical installations. He should at least possess sufficient general knowledge of the subject to be able to specify the results obtained, the precautions to be adopted both in design and during installation against leakage, fire, or shock, and to appraise the skill and capacity of the specialist craftsman to whom he recommends that work should be entrusted, whether it be the consulting electrical engineer on a large contract, or the local electrical contractor on work too small to justify the engagement of a consultant.

Although the technique of some aspects of electrical engineering is extremely intricate, the difficulties involved are chiefly concerned with electrical apparatus, instruments, and generating plant. The main principles of safety, efficiency, and economy in connection with installations taking current from public supply mains are quite simple.

The responsibility of the consumer or client commences at the main switch, to the terminals of which the company's mains are usually connected, and consists mainly in conveying the electrical energy to the points where it is required without risk to life or property. The dangers associated with electrical energy are twofold; that of shock to persons using or maintaining the equipment, and that of fire, occasioned by the accidental release of the electrical energy in wrong directions. This form of leakage is less obvious than that of gas or water, and is often more dangerous. It is, however, amenable to safeguards which are simple and efficient.

The form in which electrical energy is supplied to a building should, in order to secure maximum economy, depend upon the amount which is to be taken and the purposes for which it is to be used. Generally, however, the alternatives available from public mains are very limited. In the majority of districts, only alternating current is available. There are still a few districts which supply direct current, but these will sooner or later be changed as bulk supplies become available to the standard alternating current supply at 230 volts.

Direct current has certain advantages in connection with generation in small installations, and is therefore customary in private generating plants in districts without any public supply. Its main disadvantage is the difficulty of transforming from one voltage to another, which increases the expense of distribution over large systems;

where, as explained later, transformation is essential to reasonable economy.

Direct current is also essential for certain purposes such as the charging of secondary storage batteries, certain types of arc lamps, mercury vapour lamps, etc.

In cases where direct current is required from an alternating current supply it is necessary to introduce rotary converters or motor generators. This introduces the undesirable element of moving high speed electrical machinery.

The simple and familiar relations between current, voltage, and power in direct current supplies, viz., that the power is the product of the current and the voltage, becomes somewhat more involved when the supply is alternating, in which there is an increase of potential or voltage in one direction rising to a maximum and decreasing to zero; then an increase in the opposite direction also rising to a maximum and decreasing to a zero. It may, and almost invariably does, happen in practice that owing to the electrical properties of the apparatus used, the alternating current is out of step with the waves of alternating voltage, being either behind or in advance of the voltage, so that their maximum values are not reached at the same moment. For this reason the power used in watts in a given piece of apparatus is less than the product of the voltage and the current which it takes, and another factor known as the "power factor" has to be introduced. The value of this factor depends upon the kind of apparatus connected; it is even possible to arrange that large currents should flow under considerable pressures and yet for no power to be developed at all because the current is zero when the voltage is a maximum and *vice versa*.

Such conditions, of course, are carefully avoided in ordinary apparatus; and in the case of lamp and heating loads the current and voltage are almost exactly in phase; so that the power is given by their product, as in the case of direct current, and the power factor is unity. With certain types of A.C. motor loads the power factor is lower, say 0.6 to 0.8. Naturally, low power factors are a bugbear to the electrical engineer, since he has to lay heavier cables to carry currents which do not do a fair share of work; but the question does not arise in ordinary installations for lighting and heating, and is rather one for the electrical engineer than the architect.

A substantial item in the cost of electrical energy is the interest on the cost of copper in the mains. The cross sectional area of the conductor depends upon the current in amperes and not at all upon its pressure in volts. Electrical power in watts used and sold is, in the case of direct current, the product of current in amperes multiplied by pressure in volts. Thus a kilowatt (1,000 watts) may be represented by 1 ampere at a pressure of 1,000 volts, 5 amperes at a pressure of 200 volts, or 10 amperes at a pressure of 100 volts.

Fortunately, alternating current power at any given voltage can be efficiently altered to power at any other voltage by static transformers. If, therefore, it is desired to supply a district with, say, 1,000 kilowatts (1,000,000 watts) at a pressure of 500 volts, the supply mains would have to be large enough to carry 2,000 amperes without dangerous over-heating. But if the same electrical power of 1,000 kilo-watts were supplied at a pressure of 10,000 volts, it could be conveyed along a main containing only sufficient copper to conduct 100 amperes.

Large loads are therefore generally supplied at a high voltage in order to avoid the handling of heavy currents, necessitating large cables, conduits, boxes, switchgear, etc. But high voltages, *i.e.*, pressures in excess of 250 volts in buildings for ordinary occupancy, or 500 volts in factory buildings, are not permitted unless all high voltage apparatus is made inaccessible except to the electrical staff. There is generally a demand for two different voltages, and existing local supply undertakings usually adopt a system by which the energy is available in two or more forms. Generally two mains are provided, with a pressure of say 400 volts between them, with a third main, known as the "neutral" at a pressure midway between the other two, forming what is known as the "three-wire" system. The neutral is connected to earth, so that the other two mains are at 200 volts above and below earth potential.

Lighting loads are then connected between either of the mains and the neutral, giving a pressure of 200 volts, while motor and other heavy current loads may be connected across the main or "outer" conductors at a pressure of 400 volts. More frequently, what is known as a three-phase four wire system is used. In this, three conductors carry alternating currents in which the waves of alternating voltage are out of step with each other by one-third of a period, and the fourth conductor is a neutral wire and is generally earthed. Three-phase power is particularly suitable for some types of motors which are connected to the three "phase" conductors, which, under present conditions of supply, are at present usually at 400 volts; other heavy industrial loads may be connected between any two of the "phase" conductors, giving a single phase supply at 400 volts, and domestic and light loads may be taken between any phase conductor and the neutral wire, which gives a supply at 230 volts.

The reason for these somewhat peculiar figures is not obvious, but is easily explained. If the voltages between two of the phase conductors and the neutral were out of step by exactly half a period, then the voltage between one phase conductor and neutral would reach its maximum in one direction at the same moment as the voltage between the other phase conductor and neutral reaches its maximum in the other direction. Consequently, the voltage between the two-phase conductors would be twice the voltage between either and neutral. In a three-phase system the voltages are out of step not by half a period but by one-third of a period, so that the voltage between the phase conductors is less than twice that between one phase conductor and neutral and can be shown to be 1.732 (or  $\sqrt{3}$ ) times this voltage. Thus if the voltage

between the phase conductors and neutral is 230, that between phase conductors is 400.

In the case of most small buildings one supply only is brought in, but in buildings having a larger demand it may be necessary to provide a three-phase supply and switchboard, or even to take a supply at a higher voltage still and to provide a complete transformer sub-station to deal with the load.

The many different systems, frequencies and pressures of supply which are at present in operation in different parts of this country are a source of considerable complication. The position may be contrasted with that in America, where distribution at 110 volts 60 cycles per second is almost universal. Under the scheme of the Electricity Commissioners, all systems in Great Britain are being gradually changed over to 230 volts, three-phase, four wire, at 50 cycles per second.

Having arrived at the consumer's terminals, the supply is subdivided for the various services required. The main switchboard may vary from the small board with linked tumbler switches, fuses, and meter in the case of a small house, to elaborate main switchboards, with instruments, automatic circuit breakers and the like for a large installation; but the principle is the same. The supply passes through the main switch, which, being of the multi-pole type, isolates the wiring and apparatus from the mains on all poles. The supply then passes through on each pole and through meters to the "omnibus bars" of the distribution board, from which are tapped off, through suitable fuses, the various circuits which feed different parts of the building. These circuits may either feed the appliances direct, or may feed other smaller distribution boxes, from which the final or "sub-circuits" are taken. Circuits for heating and for lifts and similar machinery, are kept entirely separate from those for lighting and are generally separately metered, since lower rates are usually charged for power and heating current; and in the case of hospitals, theatres, cinemas, and places of public resort two entirely separate supplies, preferably from different undertakings, are brought into the building, and change-over switches or links are provided to obtain a supply from the alternative source should the normal supply fail for any reason. Where a three-wire or three-phase distribution is used in a wiring system the electrical loads connected on each side of the three-wire system or on each phase of the four wire system are arranged to be as nearly equal as possible—the system is then said to be balanced.

The protection of all parts of a system of wiring against fire risk due to excessive currents is simple and is too well known to need description. Each circuit or sub-circuit is formed with wire sufficiently large to carry safely the normal maximum current resulting from the simultaneous switching on of all apparatus supplied by it, but not, of course, able to carry the heavy currents which flow in the event of a short circuit.

Circuit fuses are introduced on one or both poles of the circuit. Should the current rise above a known safe value the fuses melt or "blow" and break the circuit.

Fusible cut-outs in circuits and sub-circuits have their operating currents suitably graded so that in the event

of a fault only the affected circuit will be isolated by the blowing of its fuses.

The protection against shock, however, is generally not so well understood. The most obvious way in which a shock may be sustained is by touching simultaneously both poles of a circuit, when the full voltage will be applied across the body. If both poles are completely insulated from earth, then if only one pole is touched by a person connected to earth (through standing on wet earth or on a surface connected to earth, such as a concrete floor in a steel frame building, etc.), no shock will result. But if the insulation of one side of the system is damaged for any reason, so that one side comes in contact with earth, then the other side of the system becomes "alive" and there is danger of a shock to a person who accidentally comes in contact with it, or with metal which may accidentally be connected to it. For this reason it is generally arranged that one cable of the supply company's system is permanently and deliberately connected to earth; and the cables and wires are encased in a metal sheath—either in the form of the lead covering of the cables, or of the conduit in which they run—which sheath is also connected to earth. Similarly all junction boxes, metal distribution boxes, the frames of motors and other apparatus which might accidentally come in contact with the insulated side, are electrically bonded together and connected to earth. If the insulation is damaged or breaks down, and the side which should be insulated comes in contact with the conduit or other metal, the current immediately leaks away to earth, forming a short circuit, which, if sufficiently severe, will blow the fuse or operate a special safety device; but so long as all metal parts which can conceivably become alive are properly earthed there is no danger from shock. Single pole switches on an earthed system which disconnect one side only of the circuit, should, of course, never be inserted on the earthed side, otherwise there is risk of shock during repairs. For this reason the earthed main and the earthed wire of a wiring system is generally braided with a distinctive colour. The trouble is, however, that the earthing is often very insufficiently carried out. Portable appliances or lamps supplied through flexible cord are seldom earthed; and the system instead of being a safeguard becomes an additional danger. If one side of the supply is earthed, then all such appliances should be properly earthed by a third wire in the flexible cord, and all switch covers, etc., should be connected electrically to the conduit or to the lead sheathing of the cables. The danger is particularly severe in bathrooms and in places where persons are specially liable to be in very good electrical connection with earth. In such cases a shock may easily be fatal, which, in normal circumstances, would be merely unpleasant; and many deaths have occurred through switches placed within reach of a person standing in the bath becoming alive through some defect. The system of earthing the sheath of a cable and all the metal accessories which surround the auxiliary apparatus may be illustrated by a hydraulic analogy—a time-honoured means of explaining many electrical problems. The cables and current-carrying parts may be likened to pipes carrying a dangerous fluid under pressure, which it is essential to prevent from escaping

from the pipes or of getting on to their outer surface where persons might come in contact with it. As a means of protection, therefore, the pipes carrying the fluid are surrounded by a drain pipe throughout their whole length, of sufficient capacity to deal with any leak or burst which might occur in the main pipes, and to carry away the fluid without creating undue pressure in the drains or allowing the fluid to escape. The analogy should not be pushed too far, as it does not completely represent the electrical system with two conductors, one being earthed; but is sufficient to give an idea of the principle involved.

One point of importance will be apparent from the analogy. It is obvious that the earthing system should have sufficient current carrying capacity to deal with the largest fault currents which are likely to occur, as otherwise in the event of a heavy fault the resistance of the earthing system would be sufficient to cause large voltage drops, and parts of the metal work might be at a pressure considerably above earth with consequent danger. Systems of conduit in which the lengths are not screwed, but are pushed into a socket and fastened by a setscrew, do not give a sufficiently good contact at the joints to form a really reliable earthing system; and switch and distribution boxes which are not in solid electrical connection with the coverings of all wires entering them may be a source of danger.

The completely earthed conduit system, using seamless screwed barrel, is undoubtedly the safest system, provided that the earthing of all metal parts, including accessories on flexible cords, is properly and conscientiously carried out; but it is also the most expensive. In a new building it is comparatively easy to erect the conduit as the building progresses, in co-operation with other trades; and the system has the further advantage of permitting the cables to be withdrawn, should they become defective, or—if sufficient provision has been made in the first instance—of drawing in further circuits without disturbing the walls and ceilings. In the case of existing buildings where it is desired to instal or alter the wiring, however, the use of this system has disadvantages. If the conduits are to be buried in the walls, then channels must be chased for them and made good afterwards; and if they are to be run on the surface they can be very unsightly, and their erection is complicated by the necessity of making many bends to accommodate cornices and mouldings, which would be unnecessary had the conduit been buried in the walls. In such cases there are available other and cheaper systems employing lead-covered cables, which are much smaller than the corresponding conduit, and which can easily be run. It is, however, necessary to ensure that such cables are properly protected against mechanical injury, for instance by an isolated length of conduit in places where nails might be driven into a wall in which they are run; and that the lead sheath should be electrically continuous throughout the system and properly earthed. Such isolated lengths of conduit should also be efficiently earthed. Some such lead-covered cables have a special earthing wire laid up with the conductors, so that the earth connection is separate from the lead sheath.

Another system which has advantages for special purposes departs entirely from the earthed system and

employs complete insulation for both poles of the circuits, using cables sheathed with a tough rubber generally known as "cab-tyre sheathed", generally abbreviated to C.T.S. This sheathing is particularly resistant to wear and also to chemical attack, and is to be recommended for flexible cables for the supply of portable apparatus such as vacuum cleaners or portable lamps, drills, etc. It should be remembered, however, that there is still danger from unearthed metalwork such as switch handles and covers, should one side of the system be accidentally earthed, and the use of switches, lampholders, etc., which are entirely made of insulating material is to be recommended, particularly when this system of wiring is employed.

It is necessary to bear in mind that before wiring is commenced in a building the fire insurance office should be consulted, and their rules adhered to. Many insurance companies adopt the Regulations for the Electrical Equipment of Buildings issued by the Institution of Electrical Engineers; and in any premises coming under the provisions of the Factory and Workshops Acts the Electricity Regulations must be complied with. These Regulations are well worth study by those who are unfamiliar with them, as they give an excellent conception of sound practice.

Some doubt may possibly be felt as to the effect on existing installations of changing over from supplies generated locally in a district to a bulk supply system. It should be realised that for the cost of any alterations consequent on a change of voltage, frequency, or other characteristic of the supply due to connection of a district previously served locally to a bulk supply, the supply undertaking is legally liable and not the consumer. This is not always advertised by supply companies and clients should be warned against signing forms for new supply without careful examination.

The magnitude of the alterations necessary will depend partly upon the nature of the change and partly upon the nature of the apparatus connected to the system. Generally speaking, electrical apparatus which depends upon thermal effects, such as lamps, heaters and the like, are independent of the nature of the supply—i.e., whether alternating or direct—and of the frequency; but they are generally very sensitive to changes of voltage, both as regards their efficiency and their life. Incandescent lamps, for instance, change in light output three times as rapidly as the applied voltage, and in life twelve to sixteen times as rapidly.

Heating elements are not usually so sensitive as lamp filaments, as they are not run at so high a temperature; and arc lamps are not so sensitive to changes in voltage, though arcs designed for use on direct current are unsuitable for use on alternating, whether they be carbon arcs of any ordinary pattern or mercury vapour.

Apparatus of the magnetic type, however, is less dependant upon voltage changes of a small order, but is more sensitive to changes of frequency or nature of the supply. This applies specially to motors and control gear, such as lift machinery and ventilating plant and transformers. Except in the case of small portable apparatus, such as vacuum cleaners and sewing machines, having specially designed universal motors, a direct current motor cannot be used on alternating current. The electrical equipment of theatres and cinemas is likely to be

considerably affected by any change. It should be noted that increase of voltage or pressure does not indicate that more current has to be carried by the house wiring. On the contrary, if the power consumed remains the same the wiring will really be carrying smaller currents than before; and as heating effects in the cables depend upon currents and not upon voltage, the temperature rise is reduced by any increase in supply voltage.

The wiring of the building, if it has been properly installed in the first instance, will normally be unaffected by any raising of voltage, unless the previous supply was at a very low voltage and proper earthing precautions were omitted; the only necessary precaution being to ensure that the fuses and meters are properly rated for the new conditions.

Considerable variation exists in the quality of insulation of electric wires and cables. It is necessary that the insulation resistance should be sufficiently high in the first instance, and also that the materials used should be capable of retaining their insulating properties and of withstanding reasonably rough mechanical treatment in the process of drawing in and erection. Cables made according to the specification of the Cable Makers' Association, which are marked "C.M.A. Brand," are to be recommended as reliable; other brands may or may not be.

There are two qualities of cables generally available: the 600 megohm and the 2,500 megohm; the former is quite adequate for all ordinary purposes, and the latter, which is more costly, is only used in cases where especially high quality is called for.

The electrical equipment of theatres, cinemas and public buildings is subject to special regulations, with regard to which the local authority should be consulted.

NOTE.—Since the above was written, an excellent booklet on good and bad installation work has been issued by the Electrical Contractors' Association (Inc.) of 15 Savoy Street, London, W.C.2. It contains many valuable practical hints, is well written, well illustrated, and will repay careful study.

#### R.I.B.A. (ARCHIBALD DAWNAY) SCHOLARSHIPS, 1929-1930.

In accordance with the terms of the will of the late Sir Archibald Dawnay, the Royal Institute of British Architects have awarded one Scholarship of £75 for the academical year 1929-1930 to Mr. F. J. M. Ormrod of the School of Architecture, University of Liverpool, and one Scholarship of £50 for the academical year 1929-1930 to Mr. J. P. Ward of the Welsh School of Architecture, Cardiff. Mr. L. A. Chackett, of the Birmingham School of Architecture, who was awarded a Scholarship of £75 for the academical year 1928-1929, and Mr. John Hughes, of the School of Architecture, University of Liverpool, who was awarded a Scholarship of £50 for the academical year 1928-1929, have been granted renewals of their Scholarships for the year 1929-1930.

The Scholarships are intended to foster the advanced study of construction and the improvement generally of constructional methods and materials and their influence on design.

## Allied Societies

*(The attention of Members of Allied Societies is particularly called to this page)*

### THE AUSTRALIAN INSTITUTE OF ARCHITECTS.

An important step in the development of the art of architecture in Australia has been taken by the foundation of the "Australian Institute of Architects." The President of the new body, Professor Hook of Sydney, has just informed the R.I.B.A. of the fact by a cable conveying the greetings of the new Commonwealth Institute to the parent body in London. The President of the R.I.B.A., Sir Banister Fletcher, has replied by cable sending his thanks for the greeting and congratulating the organisers upon their work.

Many years of preparatory labour have been necessary to secure this result. For a long time there was no connection of any sort between the architectural societies in the various States of the Commonwealth, and some of the States had no representative Societies. The gaps were gradually filled and all these Societies became Allied Societies of the R.I.B.A. Some years ago the separate Societies established a "Federal Council of the Australian Institutes of Architects" for the purpose of dealing with matters affecting Australia generally. This Federal Council was admitted to alliance with the R.I.B.A., and given representation upon its Council and its Allied Societies' Conference. Now, at last, the Federal Council has been transformed into the Australian Institute of Architects and takes its place beside the other representative bodies of the Dominions—the Royal Architectural Institute of Canada, the New Zealand Institute of Architects, and the Institute of South African Architects—which are all working in harmonious alliance with the parent body, the Royal Institute of British Architects.

### GLOUCESTERSHIRE ARCHITECTURAL ASSOCIATION.

A well-attended meeting of the Gloucestershire Architectural Association was held on Thursday, 12 September, when visits were paid by invitation to the Stonehouse Brick and Tile Company's works, where the processes of manufacture were explained by Mr. Anderson.

Leonard Stanley Church was then visited, and here the President, Mr. Thos. Falconer, F.R.I.B.A., and Mr. Stuart Thompson (representing the contractors, Messrs. John Thompson and Sons, of Peterborough) described the repair work to the church tower now in progress, and the latter gave an account of repair work at St. George's Chapel, Windsor, and at Durham Castle.

Members then took tea at the Vicarage, by the kind invitation of the Rector and Mrs. Saleby.

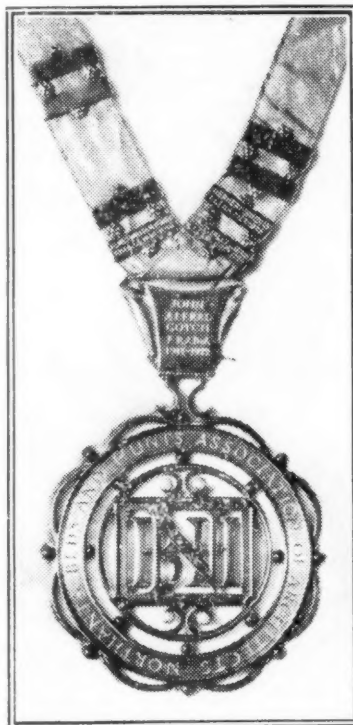
After tea the Exhibition House, at Ryeford, of the West Gloucestershire Power Company was examined, and the various electrical apparatus and fittings explained.

Votes of thanks were accorded to all who had contributed to a pleasant and successful meeting.

### THE NORTHAMPTONSHIRE, BEDFORDSHIRE AND HUNTINGDONSHIRE ASSOCIATION OF ARCHITECTS.

We reproduce a photograph of the new badge, to be worn by the President for the time being of the Northamptonshire, Bedfordshire, and Huntingdonshire Association of Architects.

The Association was formed for Northamptonshire in 1911, Mr. J. A. Gotch, P.P.R.I.B.A., being its first president. In 1928 it was enlarged by including the architects in the counties of Bedford and Huntingdon, and it was felt that, to bring the Association into line with other provinces, which cover prac-



tically the whole of the British Empire, and are in alliance with the Royal Institute, its President should wear a distinctive badge of office.

At the request of the Council of the Association, Mr. J. A. Gotch kindly consented to design the badge.

The President's badge is of silver gilt, the silver being left bare in the circle around the monogram for the name of the Association. Its outer frame is set with red coral and pearl bosses, which give a richness to the whole beautiful design.

The names of the presidents are recorded on the centre clasps and small clasps on the ribbon. The names at present are:—

John Alfred Gotch, F.R.I.B.A., 1911-1922.

Sidney Frank Harris, F.R.I.B.A., 1923-1924.

James William Fisher, F.R.I.B.A., 1925-1926.

Herbert Norman, F.R.I.B.A., 1927-1928.

The name of the present President, Mr. R. J. Williams, F.R.I.B.A., will be added in due course.

## Obituary

MILTON BENNETT MEDARY: 1874-1929.\*

*"For these maintain the fabric of the world  
And the handiwork of their craft is their prayer."*

AN APPRECIATION. BY J. MONROE HEWLETT.

The man who a few months ago received the highest honour that the American Institute can bestow has passed from among us.

With our sorrow at his passing comes an increased realisation of the great heritage he leaves with us.

Many qualities go to the making of an architect. Many architects, possessed of but a few of such qualities, have contributed notably to their art. Among those who have achieved distinction, we find some of marked scholarly attainments, some brilliantly original in constructive ideas, some of exquisite fantasy in design, some wise in counsel, some able in executive functions, some gifted in the leadership of men.

In the combination of all of these qualities Milton Medary's pre-eminence lies. To his creative work he brought broad vision and deep love and knowledge of all the crafts. The men who have worked with him, whether as artists, craftsmen, artisans or executives, have been inspired by the fire of his enthusiasms and by the truth of his criticisms. From him they have gained a better understanding of the nature of real collaboration in the arts.

To the advisory and administrative positions that were pressed upon him in increasing measure he brought an insight, a power of concentration and a philosophic attitude of mind that compelled attention and carried conviction. The men in control of great undertakings—commercial, educational and governmental—who have sat with him around the council table have acquired from him a new vision of the relation of beauty to utility, and an increased respect for the architect's functions and responsibilities.

To the service of his own profession and of the Institute he brought an exalted conception of the architect's opportunities for the advancement of humanism and of his own duties in this regard. The men who have worked with him have indeed lost a leader, but they have gained an added faith in the compelling power of high ideals when expressed with such gentleness, tolerance, patience and supreme unselfishness as were his.

To his fellow architects, who honoured him, admired him and loved him, his Singing Tower may well stand as a symbol of this man, whose life was dedicated to the creation and preservation of beauty, whose thoughts concerned themselves with harmony, and whose utterances were as clear and true as "bells at evening pealing."

RICHARD WARD BRIGGS [J.].

We regret to announce the death of Mr. Richard Ward Briggs, which occurred at his residence, 8 Prince's Street, Durham, on 24 June, after a few days illness. Mr. Briggs was thirty-three years of age.

He commenced his architectural career as an articled pupil in a Manchester office in 1914, but joined the forces some months later and served for four years in France, latterly as observer in the Royal Air Force. On demobilisation he entered the Manchester University School of Architecture, there gaining two valuable travelling scholarships, both of which

were expended in study in France and Italy. After taking an honours degree and passing the Institute's examinations, he continued on a post-graduate course, and during this period was awarded (1925) the Institute Silver Medal and Prize for a set of measured drawings of the Pantheon at Paris. He was also a selected finalist in the Rome Scholarship competition in the same year, but was unable to compete.

Mr. Briggs subsequently held the position of Assistant Master of Architectural Design, and Lecturer in Building Construction, at Manchester University, and was for three years Honorary Secretary to the Education Committee of the Manchester Society of Architects. He relinquished the first appointment to gain practical experience and joined the staff of Messrs. Thos. Worthington & Son, of Manchester, and later, as senior assistant, that of Messrs. Elcock and Sutcliffe, of London. At the time of his death he held the post of Assistant Architect of the Education Committee of the Durham County Council.

The funeral took place on 27 June at Manchester Southern Cemetery, West Didsbury, after service at the Church of Saint Edmund, Alexandra Park. R. A. CORDINGLEY [J.].

JOHN ELLIS [L.].

Mr. Ellis died on Saturday, 17 August, at the age of 55. He served his Articles in the office of Dr. A. Marshall MacKenzie, of Aberdeen and London, in the Aberdeen office, and immediately thereafter he proceeded to South Africa, where he built up a considerable practice in Pretoria. On return to Scotland during the South African War he commenced practice in his native town, where he carried on until his death. Most of his work was of a domestic character.

### R.I.B.A. PROBATIONERS.

During the month of August 1929, the following were registered as Probationers of the Royal Institute:—

ANDERSON: WILLIAM GEORGE DEANE, 2 Glendower Place, S.W.7.

BOX: KENNETH DIXON, c/o Ross and Macdonald, Beaver Hill, Montreal, Canada.

BRICKELL: ALBERT STANLEY, 54, Butchers Road, Custom House, E.6.

GORNEY: HELEN MARGARET, "Langton Lodge," Main Road, Muizenberg, S.A.

HACKFORTH: RICHARD EDGAR, 30, St. John's Road, Putney, S.W.15.

HILL: HENRY ALEXANDER, 52 Ewesley Road, Sunderland.

JAMES: FRANK NORMAN, 56 Braemar Avenue, Wood Green, N.22.

KELLETT: DOUGLAS, Newtown, Stanhope, Co. Durham.

LYALL: GEORGE ALEXANDER, 5 Craigcrook Terrace, Blackhall, Midlothian.

MEDLYCOTT: THOMAS ANTHONY HUTCHINGS, Sandford Orcas, Sherborne, Dorset.

NICHOLAS: MAURICE FRANCIS, Little Tylers, Warwicks Bench, Guildford.

PHILLIPS: WILLIAM ARTHUR, 10 Maida Vale, London, W.9.

SCOTT: JOHN LYALL, Knowe Cottage, Galashiels, Scotland.

WHITE: NORMAN JOSEPH SCHOFIELD, 97, Cromwell Road, S.W.7.

WHITE: ROBERT LE ROUGETEL, 2 Belvidere Road, Ainsdale, Nr. Southport.

During the month of September 1929 the following were registered as Probationers of the Royal Institute:—

ABBOTT: HARRY VICTOR, "Littlyngton," Chinbrook Road, Grove Park, S.E.12.

ALLISTON: JAMES THOMAS, 14 Glisson Road, Cambridge.

BARRY: PATRICIA ELIZABETH, "Montpelier," Kenilworth, Cape Town.

\* From *The Octagon*, August 1929.

BRIDGMAN : OLAF ADDISON HEWITT, Taw Vale, Barkley Road, Sea Point, Cape Town.

CARDEN : ANDREW, c/o National Provincial Bank, Northampton.

DEMBITZER : MAX, 8 Molteno Road, Gardens, Cape Town.

KEIGHLEY : GILBERT ALEXANDER, The High Hall, Steeton, Keighley, Yorks.

KENT : HENRY ALFRED PARKES, "Nevis," Highwick Avenue, Claremont, South Africa.

KERR : ADAM BRYCE, 41 Comely Bank Road, Edinburgh.

LAKE : HERBERT JOHN, Landscore House, Crediton, Devon.

MARÉ : ERIC SAMUEL DE, Styles, Sunningdale, Berkshire.

MASSEY : BEN, 195, Hadleigh Road, Leigh-on-Sea, Essex.

MOORE : JOHN WENTWORTH, Pemrock, Camp Ground Road, Rondebosch, Cape Town.

MUNCASTER : JOAN ELIZABETH, 50 Hurlingham Court, S.W.6.

NICKSON : RICHARD SCHOLEFIELD, Hinderton Lodge, Neston, Cheshire.

RUSSELL : RICHARD DREW, Snowhill, near Broadway, Worcs.

SUTHAR : CHANDULAL BHURABHAI, Gangashah, Rughnatt Building, Clothmarket, Delhi, India.

TATTERSFIELD : ARTHUR, 26 King Street, Wakefield.

TRONSON : REX FRANCIS, "Tiverton," Mutley Road, Seapoint, Cape Town.

WELSTEAD : ERIC ROGER, 14 The Waldrons, Croydon.

### R.I.B.A. EXAMINATIONS.

*Intermediate Examination.*—November 8, 9, 11, 12 and 14, 1929. (Last day for receiving applications, October 8, 1929.)

May 30, 31, June 2, 3 and 5, 1930. (Last day for receiving applications, April 30, 1930.)

November 7, 8, 10, 11 and 13, 1930. (Last day for receiving applications, October 7, 1930.)

*Final Examination.*—December 4, 5, 6, 7, 9, 10, 11 and 12, 1929. (Last day for receiving applications, November 4, 1929.)

July 9, 10, 11, 12, 14, 15, 16 and 17, 1930. (Last day for receiving applications, June 2, 1930.)

December 3, 4, 5, 6, 8, 9, 10 and 11, 1930. (Last day for receiving applications, November 3, 1930.)

*Special Examination.*—December 4, 5, 6, 7, 9 and 10, 1929. (Last day for receiving applications, November 4, 1929.)

July 9, 10, 11, 12, 14 and 15, 1930. (Last day for receiving applications, June 2, 1930.)

December 3, 4, 5, 6, 8 and 9, 1930. (Last day for receiving applications, November 3, 1930.)

*Special Examination in Design for former Members of the Society of Architects.*—December 4, 5, 6, 7, and 9, 1929. (Last day for receiving applications, November 4, 1929.)

July 9, 10, 11, 12 and 14, 1930. (Last day for receiving applications, June 2, 1930.)

December 3, 4, 5, 6 and 8, 1930. (Last day for receiving applications, November 3, 1930.)

*Special Examination of Licentiates to qualify as Fellows.*—November 18, 19, 20, 21 and 22, 1929. (Last day for receiving applications, October 18, 1929.)

April 7, 8, 9, 10 and 11, 1930. (Last day for receiving applications, March 14, 1930.)

November 17, 18, 19, 20 and 21, 1930. (Last day for receiving applications, October 17, 1930.)

*Statutory Examination for the Office of District Surveyor in London and Building Surveyor under Local Authorities.*—October 16, 17 and 18, 1929. (Last day for receiving applications, October 1, 1929.)

May 7, 8 and 9, 1930. (Last day for receiving applications, April 16, 1930.)

October 15, 16 and 17, 1930. (Last day for receiving applications, September 24, 1930.)

*Town Planning Examination.*—June 25, 26, 27 and 30, 1930. (Last day for receiving applications, March 3, 1930.)

### FINAL EXAMINATIONS.

ALTERNATIVE PROBLEMS IN DESIGN FOR THE YEAR ENDING 31 DECEMBER 1930.

#### Instructions to Candidates.

1. The drawings, which should preferably be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, Royal Institute of British Architects, 9 Conduit Street, W., on or before the dates specified below.

2. Each set of drawings must be signed by the author, AND HIS FULL NAME AND ADDRESS, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, must be accompanied by a declaration from the student that the design is his own work, and that the drawings have been wholly executed by him. In the preparation of the design the student may profit by advice.

4. Drawings for subjects (a) are to have the shadows projected at an angle of 45° in line, monochrome, or colour. Drawings in subjects (b) are to be finished as working drawings. Lettering on all drawings must be of a clear, scholarly, and unaffected character.

#### CIX.

(a) *Design for a Concert Hall.* A Concert Hall is to be erected in an important town on a rectangular island site measuring 250 feet by 150 feet. One of the short sides abuts on to an important and noisy thoroughfare, and the others on to secondary roads without through traffic.

The scheme is to include a Concert Hall to accommodate about 2,000 people, with foyers, refreshment rooms and orchestra and artistes' rooms, and adequate cloakroom and lavatory accommodation.

Due regard should be given to the problem of good acoustics and the usual licencing requirements.

Any ground not required for buildings should be suitably laid out.

#### Drawings required :—

Plans of all floors, four elevations and adequate sections to explain the design to eighth-inch scale.

Portion of the main entrance front to half-inch scale.

(b) Working drawings for Subject No. CVII. *A Club Building for Boy Scouts.*

The design for this Club Building may, after it has been approved, be re-submitted with the addition of :—

Working drawings of the front, including the roof over the gymnasium in plan, section and elevation to half-inch scale—with a sheet of full size details.

#### CX.

(a) *A Tea House in a Public Park with Terraces and Formal Gardens.* A Tea House is to be erected in a public park on a site facing south and falling towards an existing ornamental lake.

The distance of the Tea House itself from the lake is to be decided by the Architect. Funds are available for terraces and formal gardens, with sculpture if thought desirable.

The Tea House is to be large enough to seat approximately 100 persons inside, with additional accommodation outside as thought desirable. Adequate service rooms for teas are to be provided, also lavatories for both sexes.

#### Drawings required :—

Sixteenth-inch scale plan of lay-out with the necessary sections.

Eighth-inch scale plans, elevations and sections of the Tea House and its adjuncts.

(b) Working drawings for Subject No. CVIII. *A Small Housing Scheme in a Mining District of Kent.*

The design for a small Housing Scheme in a Mining District of Kent may, after it has been approved, be re-submitted with the addition of :—

Complete working drawings for the six Aged Miners' Homes.

Plans and elevations to the scale of 8 feet to 1 inch, sections and details to the scale of 2 feet to 1 inch.

## CXI.

(a) A design for *A Filling Station and Garage*. The site is on the corner at the junction of an arterial road with a secondary road. The frontage to the main road is 150 feet, the other frontage being 220 feet. The neighbourhood is rural.

Accommodation required :—

Filling station with petrol pumps, oil, air and water, partly under cover, but independent of garage.

Garage. Twenty "lock-up" garages and open space for 30 cars, workshop, office, waiting-room, accessory shop, lavatories.

House for manager with living-room, kitchen and offices, three bedrooms and bathroom, etc.

Attention should be paid to approaches; signs, lighting, etc., all to be indicated on the drawings.

*Drawings required :—*

Plans, elevations and sections. Scale one sixteenth-inch to one foot.

Elevation to arterial road eighth-inch to one foot and half-inch detail of a portion.

(b) Working drawings for subject No. CIX. *A Concert Hall*.

The design for a Concert Hall may, after it has been approved, be re-submitted with the addition of working drawings showing ground plan, and longitudinal section to eighth-inch scale.

## CXII.

(a) A design for *A Customs Office*. It is proposed to erect at the quay side for Continental boat traffic, offices for the inspection of passengers' luggage.

The site available is 50 feet deep (exclusive of platforms) and 240 feet long. The steamers will berth on one long side of the site and the trains draw in on the other.

Accommodation :—

Large hall for luggage inspection, having the maximum bench space consistent with easy control and circulation. The public access from boats to trains must be through this hall only.

Waiting-room, general office and passport office. Search rooms for men and women, Customs officers and police rooms with lavatories. Separate refreshment rooms and lavatories on quay side and platform.

*Drawings required :—*

Plan, sections and elevations to scale sixteenth-inch to one foot.

Quay side elevation to scale eighth-inch to one foot and half-inch detail of a portion.

(b) Working drawings for Subject No. CX. *A Tea House in a Public Park*.

The design for a Tea House may, after it has been approved, be re-submitted with the addition of half-inch details such as would be sent to a builder.

A sheet of full size details to accompany these.

## CXIII

(a) A design for *A Housing Scheme in the North-West London Area*. A new industrial concern founded in North-West London and employing a large proportion of highly-skilled workers has decided to build twenty houses for their permanent employees, and for this purpose has acquired a site of two and a half acres adjoining a new arterial road. The road runs approximately south-east to north-west, and the land is on the north-east side of the road, in the form of an equilateral triangle with the apex cut off by the arterial road, giving a frontage to this road of 60 feet, from which point the estate will be entered. It is not desired to put any building on the arterial road, and the area round the entrance at this point should be treated with gardens or other features designed as an attraction and as features marking the entrance of the scheme. The ground rises with a slope approximately one

in twenty from the road. The houses to contain living-room, parlour, scullery, three bedrooms, etc., the total area measured over all within the containing walls of both floors not to exceed 950 square feet.

*Drawings required :—*

A complete lay-out and block plan of the site and buildings showing roads, paths, open spaces, gardens: lay-out of drainage, etc., to a scale of one five hundredth inch.

Outline plan and complete front elevations in their relative positions of all buildings to a scale of 16 feet to one inch.

Plans and two elevations of any two of the cottages to a scale of eight feet to one inch.

(b) Working drawings for Subject No. CXI. *A Filling Station and Garage*.

The design for a Filling Station may, after it has been approved, be re-submitted with the addition of half-inch details of the roof truss over garage, and working drawings of the residential portion.

## CXIV.

(a) A design for *A Secondary School for about Two Hundred Boys*. A public roadway, 60 feet wide, runs along the southern boundary of the playing field, and it is desired to erect the School at this end of the field and near to the roadway. There is ample room for the buildings, but they should be so arranged as not to take up an unnecessary amount of the playground. The approaches must be from the roadway. The site is flat.

The School will be a day school for boys only, and should provide accommodation for about 200. The buildings may be of one or two storeys. The style and material is left to the designer.

Provision should be made for the following :—

Hall to accommodate 250.

Five class rooms, to accommodate 30 each.

Two class rooms, to accommodate 20 each.

One chemical laboratory, to accommodate 30.

Small preparation room and store.

One physics laboratory, to accommodate 30.

Small preparation room.

One art room, to accommodate 30.

One handicraft room, to accommodate 30.

Four music cubicles.

Gymnasium.

Library.

A dining-room to seat about 100, with small kitchen, larder etc.

W.C. and basin for kitchen staff.

Head master's room.

Small room adjoining for secretary.

Small waiting-room.

Staff common room.

Staff cloakroom and lavatories, etc.

Cloakroom for boys.

Offices for boys.

Changing room, with showers.

Caretaker's store.

Book store.

Games store.

Heating chamber, etc.

*Drawings required :—*

Plans of all floors to eighth-inch scale. Two elevations to eighth-inch scale.

Sufficient sections to illustrate the scheme.

(b) Working drawings for Subject No. CXII. *A Customs Office*.

The design for a Customs Office may, after it has been approved, be re-submitted with the addition of complete eighth-inch scale working drawings of the Main Hall, and a half-inch section showing the roof truss.

*Dates for Submission of Designs in 1930.*

Subject CIX	.. 28 Feb.	Subject CXII	.. 29 Aug.
Subject CX	.. 30 April	Subject CXIII	.. 31 Oct.
Subject CXI	.. 30 June	Subject CXIV	.. 31 Dec.

### EXHIBITIONS OF DESIGNS OF STUDENTS EXEMPTED FROM THE R.I.B.A. INTERMEDIATE AND FINAL EXAMINATIONS

The designs of students of Schools of Architecture recognised for exemption from the R.I.B.A. Final Examination will be exhibited in the R.I.B.A. Galleries, 9 Conduit Street, London, W.1, from 14 to 22 October 1929, inclusive, between the hours of 10 a.m. and 8 p.m., Saturday, 10 a.m. and 5 p.m.

The R.I.B.A. Board of Architectural Education Silver Medal for Recognised Schools is awarded for the best set of drawings submitted.

The designs of students of Schools of Architecture recognised for exemption from the R.I.B.A. Intermediate Examination will be exhibited in the R.I.B.A. Galleries from 26 October to 2 November 1929, inclusive, between the hours of 10 a.m. and 8 p.m., Saturday, 10 a.m. and 5 p.m.

The R.I.B.A. Board of Architectural Education Bronze Medal and £5 in books is awarded for the best set of drawings submitted at this exhibition.

### R.I.B.A. INTERMEDIATE EXAMINATION.

#### IRISH CENTRE.

Belfast will be an additional centre for the R.I.B.A. Intermediate Examination provided that at least five candidates for examination at that centre are forthcoming on each occasion.

### R.I.B.A. STATUTORY EXAMINATIONS.

The R.I.B.A. Statutory Examinations for the Office of District Surveyor under the London Building Acts, or Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 7, 8 and 9 May 1930.

The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is 16 April 1930.

Full particulars of the examinations and application forms can be obtained from the Secretary R.I.B.A.

## Notices

### THE INAUGURAL GENERAL MEETING.

4 NOVEMBER 1929.

The first General Meeting of the Session 1929-30, will be held on Monday, 4 November 1929, at 8.30 p.m., for the following purposes:—

To read the Minutes of the Sixteenth General Meeting (Ordinary) of the Session 1928-29, held on 24 June 1929; formally to admit members attending for the first time since their election.

To read the names of candidates nominated for election on 2 December 1929.

To announce the Council's nomination for the Royal Gold Medal 1930.

Sir Banister Fletcher, F.S.A., President, to deliver the Inaugural Address of the Session, and to unveil and formally present the portrait of Mr. Walter Tapper, A.R.A., F.S.A., Past President, painted by Sir William Orpen, R.A.

### R.I.B.A. SESSIONAL MEETINGS 1929-30. (Mondays—at 8 p.m., except where otherwise stated.)

1929.

Nov. 4.—INAUGURAL MEETING, 8.30; President's Address.

" 18.—GENERAL MEETING: "The Design of Science Buildings," by ALAN E. MUNBY, M.A. Cantab. [F.].

Dec. 16.—GENERAL MEETING: Debate on "Are Building Bye-laws destructive of Rural Beauty?" to be opened by M. H. BAILLIE-SCOTT [F.].

1930.

Jan. 6.—GENERAL MEETING: "Regional Planning, with special reference to Greater London," by DR. RAYMOND UNWIN [F.]. Award of Prizes and Studentships.

" 20.—GENERAL MEETING, 8.30: President's Address to Students. Criticism by LOUIS DE SOISSONS, O.B.E. [F.], on work submitted for Prizes and Studentships. Presentation of Prizes.

Feb. 17.—GENERAL MEETING: "The Thames Valley Preservation Scheme," by Professor PATRICK ABERCROMBIE, M.A. Liverpool [F.].

Mar. 3.—GENERAL MEETING: "The Design of Modern Railway Stations in Europe and America," by FRANK PICK.

" 17.—GENERAL MEETING, 8.30: Presentation of the Royal Gold Medal.

Apr. 7.—GENERAL MEETING: "Antonio da San Gallo the Younger," by J. HUBERT WORTHINGTON, O.B.E., M.A. [A.].

" 28.—GENERAL MEETING: "Architects' Drawings of 1800-1850," by Professor A. E. RICHARDSON, F.S.A. [F.].

May 26.—GENERAL MEETING: "Recent Excavations at Ur," by C. LEONARD WOOLLEY, M.A. [Hon. A.].

### CONDITIONS OF CONTRACT.

In answer to many inquiries made by members regarding the recognised Form of Contract, the minute of the General Meeting (Business) held on 10 June, 1929, is reprinted below for information:—

"RESOLVED that this meeting of the R.I.B.A. after full consideration of the terms of the proposed draft of the New Form of Contract now again submitted as in amendment of the existing and agreed 1909 Form of Contract, is unable to accept the same, but concurrently renews its offer to reconsider the amendment of the 1909 Form where necessary."

### REPLIES TO QUERIES IN THE R.I.B.A. JOURNAL.

Members will be aware that a large number of questions on points of professional practice and technical interest are addressed to the Practice and Science Standing Committees and to other Committees of the Institute.

The Council, on the recommendation of the Science Standing Committee, have decided to adopt the procedure of publishing such queries in the JOURNAL when on matters of general interest, together with the replies of those members who, having special knowledge and experience of the particular questions, have been asked to express their opinions upon them. The scheme is based upon that adopted by the Surveyors' Institution.

The identity of the member seeking the information will not be disclosed, but the replies published will be signed by the members who have supplied them.

The advantages of this system will be obvious and it is hoped that members will do everything to ensure its success. A list of members with special knowledge and experience of the various problems upon which questions are asked is being compiled and the Secretary would be glad to receive the names of those who are willing to co-operate with particulars of the subjects with which they are qualified to deal.

#### ELECTION OF MEMBERS, 3 FEBRUARY 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 3 February 1930 they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 9 November 1929.

#### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

#### ISOMETRIC DRAWING OF ST. PAUL'S CATHEDRAL.

A reproduction of the Isometric Drawing of St. Paul's Cathedral, prepared by Mr. R. B. Brook-Greaves, is on exhibition in the R.I.B.A. Common Room. The drawing is of great educative value, and members and students are urged to take an early opportunity of inspecting it. Reproductions can be obtained on application to the Secretary R.I.B.A., price £1 10s. 6d. each. A small reproduction is published as a frontispiece in the present issue.

#### COMPOSITION OF MEMBERS' SUBSCRIPTIONS FOR LIFE MEMBERSHIP.

The attention of Members is drawn to the scheme for compounding subscriptions for Life Membership which was approved by the General Body at the Business Meeting held on Monday, 5 December 1927.

Fellows, Associates and Licentiates of the Royal Institute may become Life Members by compounding their respective annual subscriptions on the following basis:—

For a Fellow by a payment of £73 10s. (70 guineas).

For an Associate or Licentiate by a payment of £44 2s. (42 guineas), with a further payment of £29 8s. on being admitted as a Fellow.

Provided always that in the case of a Fellow or Associate the above compositions are to be reduced by £1 1s. per annum for every completed year of membership of the Royal Institute after the first five years, and in the case of a Licentiate by £1 1s. per annum for every completed year of membership of the Royal Institute.

#### APPLICATIONS FOR MEMBERSHIP.

##### ELECTION, 2 DECEMBER 1929.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 4 November 1929.

#### AS HON. FELLOW (1).

HOWARD DE WALDEN AND SEAFORD: LORD, THOMAS EVELYN SCOTT-ELLIS, 37 Belgrave Square, S.W.1.

#### AS HON. ASSOCIATE (1).

STOTT: SIR PHILIP SIDNEY, BART, F.S.A., Stanton Court, near Broadway, Gloucestershire.

#### AS HON. CORRESPONDING MEMBER (1).

WANSCHER: VILHELM M.A., Professor of the History of Art in the Royal Academy at Copenhagen; Honorary Member of Akademisk Arkitektforening at Copenhagen; Member of the Kongelig Norske Videnskabers Selskab at Trondhjem; Cav. Corona d'Italia; Amalgade 4, Copenhagen.

#### AS FELLOWS (20).

BROAD: MALCOLM CHARLES [A. 1918], Calle 25 de Mayo 395, Montevideo, Uruguay.

COWDEROY-DALE: FREDERICK CHARLES [A. 1921], 31 Marina, St. Leonards-on-Sea, Sussex.

HARRIS: PHILIP CAPES [A. 1914], Zanzibar, East Africa; 31 Arundel Avenue, Sefton Park, Liverpool.

HOOPER: CHARLES OWEN [A. 1920], Ching Ming Building, S.A.D. No. 3, Hankow, China.

MACFARLANE: GEORGE GORDON [A. 1921], 7 Carteret Street, S.W.1; 41 Acacia Road, N.W.8.

MINTY: ROBERT JAMES HUGH [A. 1922], 21 Great Peter Street, Westminster, S.W.1; 32B Queen's Road, St. John's Wood, N.W.

MULLINS: GEOFFREY THOMAS [A. 1918], 5 Verulam Buildings, Gray's Inn, W.C.1; "Whincot," Holbrook Lane, Chislehurst, Kent.

NEWMAN: PERCIVAL CORNEY, F.S.I. [A. 1902], 32 Walbrook, E.C.4; 74, Clifden Road, Twickenham.

NICHOLSON: FREDERICK WILLIAM [A. 1912] 2, Dewey Avenue, Aintree, Liverpool.

STOCKDALE: WILLIAM [A. 1907], 81 Howard Street, North Shields; 5 Windsor Gardens, North Shields.

STRICKLAND: HARLEY CLARENCE WILFRID [A. 1919], County Offices, Brecon; "Brynnfon," Cradoc Road, Brecon.

VERNON: FREDERICK AUSTIN [A. 1920], 82, Mortimer Street, W.; "Cavaick," 185 Tulse Hill, S.W.2.

And the following Licentiates who have passed the qualifying Examination:—

CLARKE: GODFREY L., Piece Hall Yard, Bradford, Yorks; 11 Castle Road, Keighley, Yorks.

SALMOND: WILLIAM, F.S.I., 15 South Tay Street, Dundee; 17 Adelaide Place, Dundee.

TANNER: DOUGLAS GEORGE, Great Western Buildings, Livery Street, Birmingham; 79 Westfield Road, Edgbaston, Birmingham.

And the following Licentiates who are qualified under Section IV, Clause 4 c (ii) of the Supplemental Charter of 1925:—

DAVIES: CHARLES GILBERT, 4, Avenue Edward VII, Shanghai, China; 63 Route de Say Zoong, Shanghai, China.

GUNSON: ERNEST, F.S.I., 10 Marsden Street, Manchester; "The Orchard," Elm Road, Didsbury, Manchester.

HAMILTON: GEORGE DOUGLAS, 23 Wormwood Street, E.C.2; 16 The Drive, Walthamstow, E.17.

JENKINS: THOMAS, J.P., Arcade Buildings, Station Street, Burton-on-Trent; Croxall Hall, near Lichfield.

LIDDLE: EDWIN FEWSTER WAUGH, 12 Eldon Square, Newcastle-upon-Tyne; "The Little Garth," Hexham, Northumberland.

#### AS ASSOCIATES (81).

ASHWORTH: HENRY INGHAM, B.A. ([Passed five years' course at Manchester University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], "The Homestead," Poynton, Cheshire.

- BARKER : FRANCES (MISS) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 49 Lewisham Hill, S.E.13.
- BARTHOLOMEW : GEORGE [Final], 8 Campfield Street, Falkirk, Stirlingshire.
- BECK : RICHARD THEODORE [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 4, Mount Avenue, Ealing, W.5.
- BRADLEY : FRANK [Final], Croft House, Chorley Street, Bolton, Lancs.
- BREAKWELL : JOHN [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 35 Broadhurst Gardens, Hampstead, N.W.6.
- BROWN : ROBERT SMART [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 47 Hamilton Place, Aberdeen.
- BUCHANAN : JAMES WARDROP [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], c/o Clonmore, Dyke Road Drive, Brighton.
- BUNYAN : JAMES [Passed five years' course at Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 42 Highfield Drive, Kelvindale, Glasgow, W.2.
- COLLMAN : LEONARD JOHN [Final], "The Old House," Marlborough Road, Hampton-on-Thames.
- COOTE : LIONEL FRANCIS RUSSELL [Final], The Cottage, North Park, Gerrards Cross.
- CRABTREE : WILLIAM, Dip. Arch. [Liverpool] [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 40 Windsor Road, Doncaster, Yorks.
- CROSBY : EDMUND LIONEL [Final], 11 Hillfield Avenue, Wembley, Middlesex.
- CRUICKSHANK : ALEXANDER JAMES [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 15 Gannochy Green, Gannochy, Perth.
- CULPIN : CLIFFORD EWART [Final], 99a Cranbrook Road, Ilford, Essex.
- DEOLALIKER : GANESH BHIKAJI [Special Examination], Office of Government Architect, Public Works Department, New Delhi, India.
- DOUGLAS : PERCIVAL HOWARD [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Herons Gate, Eastbury Road, Watford, Herts.
- DOW : JOHN SIM [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Dunolly, Young Street, Craigie, Perth.
- DUNN : RICHARD RUSSELL ANTHONY [Final], 10 Frederick Street, Sunderland.
- ECCESTONE : JAMES HENRY [Final], 58 North Worple Way, Mortlake, S.W.14.
- EDEN : WILLIAM ARTHUR [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 16 Balmoral Terrace, Stockton-on-Tees.
- ELLIS : HAROLD GEORGE, B.Arch. (L'pool) [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 16 Sandiways Road, Wallasey, Cheshire.
- FINNEGAN : LEONARD [Special Examination], "Clifton," Kenton Lane, Kenton, Middlesex.
- FOLEY : HUGH VALENTINE [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 72 Oakley Street, Chelsea S.W.3.
- FORBES : IAN [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], "The Shielling," Chalfont St. Giles, Bucks.
- FRASER : JAMES MILNER [Final], Singapore Improvement Trust, Municipal Offices, Singapore.
- GARRETT : ALFRED JOHN WILTON [Special Examination], 5 Fillebrook Avenue, Leigh-on-Sea.
- GIBB : JOHN JAMES BAYNE [Final], 126 Forth Street, Pollok-shields, Glasgow.
- GOLDING : ALFRED [Final], 42 Rosebery Avenue, Westoe, South Shields.
- GREENWOOD : FRED [Final], 234 Gloucester Terrace, Hyde Park, W.2.
- HALL : FREDERICK GEORGE ALFRED [Final], 108 Hambalt Road, Clapham Park, S.W.4.
- HARDING : HERBERT JOHN, A.R.C.A. [Special Examination], 46 Beauchamp Place, Brompton Road, S.W.3.
- HATCHER : BASIL AINSWORTH [Final], Tudor Cottage, Rushmere, Ipswich.
- HELM : WILLIAM REX [Final], 32 Eastbourne Street, Oldham.
- HOLT : A. NEVILLE [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], "Morlan," Graham Road, West Kirby, Cheshire.
- HOUGH : GEORGE CECIL [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 4 Curzon Road, Hoylake, Cheshire.
- JENKINS : GILBERT LAWRENCE MARTIN [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing the Examination in Professional Practice], 38 Elm Park Road, Chelsea, S.W.3.
- KING : WILLIAM HENRY [Final], 106 Hendon Way, Golders Green, N.W.2.
- KNIGHT : GEORGE WILLIAM [Special Examination] 146 Underhill Road, East Dulwich, S.E.22.
- KNOWLES : HERBERT JAMES, Dip. Arch. (Liverpool). [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 23 Craven Avenue, Plymouth, Devon.
- LAMB : WILLIAM [Final], Saxon Tower, Windsor Castle, Berkshire.
- LANE : HOWARD ROSS [Final] "Bramshaw," King's Avenue, Christchurch, Hants.
- LEWIN : CAPTAIN HARRY ALMOND [Special Examination], Public Works Department, Colombo, Ceylon.
- LIGHTFOOT : BRODRICK ST. CLAIR, Dip. Arch. (Liverpool). [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], c/o Messrs. Kendall & Mansergh, Rhodes Building, St. George Street, Cape Town.
- LOVETT : WILLIAM FRANCIS BENJAMIN [Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 34 Cartwright Gardens, Tavistock Square, W.C.1.
- LOWES : ALEXANDER JOHN GEORGE [Special Examination], 153 King's Road, Chelsea, S.W.3.
- LOWTHER : ANTHONY WILLIAM GEORGE [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], The Old Quarry, Ashted, Surrey.

- LUBYSKI: NORMAN FRANCIS [Final], "Loretta," Sedgemore Avenue, Camps Bay, Cape Town, South Africa.
- MACDONALD: ERIC ALEXANDER HECTOR [Final], 234 Gloucester Terrace, Hyde Park, W.2.
- MACDONALD: GEORGE SUTHERLAND [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 21 Moray Street, Elgin, Morayshire.
- McLAREN: IAN HASTINGS [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Abbotsville, Culter, Aberdeenshire.
- MANFIELD: JOHN LESLIE STEPHEN, B.Arch. (Sydney). [Passed five years' course at Sydney University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], c/o Australian Bank of Commerce, Ltd., 62 Bishopsgate, E.C.2.
- MANT: CECIL GEORGE [Final], 8 Lansdowne Road, Muswell Hill, N.10.
- METCALFE: JOHN GEORGE [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 36 Cedar Grove, Lodge Lane, Liverpool.
- METZ: MORRIS DE [Final], 34 Upper Berkeley Street, W.1.
- MITCHELL: THOMAS [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 62 Dalhousie Road, Barnhill, Broughty Ferry, Angus.
- MORGAN: BRODRICK JOHN MORRIS [Final], 28 Sanderstead Avenue, N.W.2.
- MORRIS: WILLIAM ALEXANDER [Special Examination], Hill Croft, Weaverham, Cheshire.
- MORRISON: ROBERT JAMES [Passed five years' course at the Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 24 Cedar Place, Aberdeen.
- MOWBRAY: WILLIAM BAWDEN [Final], 36 Albion Road, Sutton, Surrey.
- NAPOLITANO: FREDERICK [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 159 Haliburton Road, St. Margarets-on-Thames.
- PLANT: WALTER GEOFFREY [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Hall Cross Cottage, Doncaster.
- POULTON: DENIS, Dip. Arch. (Liverpool), [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 2 Wellington Square, Oxford.
- REDWOOD: REGINALD SEYMOUR [Final], 36 Market Place, Chippenham, Wilts.
- SAUNDERS: GEORGE SLEITH [Final], 53 Park Lane, Leeds.
- SCAMMELL: RODNEY QUINTON [Final], 706 Coventry Road, Small Heath, Birmingham.
- SHEWAN: WILLIAM WYLLIE CLARK [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 14 Calsayseat Road, Aberdeen.
- SIMPSON: ROBERT ALISON CRIGHTON, B.A.(Cantab.) [Passed five years' joint course at the Cambridge University School of Architecture and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Greyshields, Kirkstall Lane, Leeds.
- SPENCELY: HUGH GREVILLE CASTLE, B.Arch. (Liverpool), [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 9 Weymouth Street, W.1.
- STATHAM: COLIN WALTER [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Rookery Wood House, Loudwater, Rickmansworth.
- SUMMERSON: JOHN NEWENHAM, B.A.(Arch.) [Passed five years' course at the University of London School of Architecture. Exempted from the Final Examination after passing the Examination in Professional Practice], 8 Royal Terrace, Edinburgh.
- SYKES: CECIL GEORGE [Final], 35 Hogarth Hill, N.W.11.
- TABER: EDWIN ATKINSON [Final], 12 Hilton Road, Potternewton Park, Leeds.
- TAMKIN: ARTHUR LESLIE [Final] "Paraiso," St. Efrides Road, Torquay.
- THOMPSON: GERALD LEOPOLD [Final], 18 Willoughby Road, Hampstead, N.W.3.
- TOMLINSON: HAROLD, M.A.(Cantab.) [Special Exemption], 14 Trumpington Street, Cambridge.
- TURNER: CHARLES AUSTIN CHARLEWOOD [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 18 Crossways, Sutton, Surrey.
- WAILLES: PHILIP ARTHUR [Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Knotty Green, Beaconsfield, Bucks.
- WALKDEN: JOHN STANLEY [Passed five years' course at Manchester University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Kenmore, Dales Avenue, Whitefield, Manchester.
- WAUGH: DAVID STARK REID, Dip. Arch. (Glasgow) [Passed five years' course at Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 1 Maitland Avenue, Langside, Glasgow, S.I.
- WILLIAMS: GEORGE [Final], Ferres Chambers, Whitefriargate, Hull.

## Competitions

### ABERYSTWYTH: PROPOSED WINTER GARDEN AND BAND PAVILION.

The Aberystwyth Corporation invite architects to submit, in open competition, designs for a Winter Garden and Band Pavilion.

Assessor: Mr. Arnold Thornely [F.].

Premiums: £100, £70 and £30.

Last day for receiving designs, 1 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Aberystwyth. Deposit £2 2s.

### ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F.].

Premiums: £250, £150 and £100.

Last day for receiving designs, 28 February 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

**BIRMINGHAM: BRANCH ART GALLERY.**

The City of Birmingham Museum and Art Gallery Committee proposes to erect a Branch Art Gallery at the Pebble Mill Road entrance to Cannon Hill Park, and invites architects practising within the City boundaries to submit competitive designs.

Assessor: Ernest C. Bewlay [F.].

First and only premium: £100.

Total cost: £6,000.

Designs to be delivered to the Keeper, Art Gallery, Birmingham, not later than 12 o'clock noon, on Saturday, 2 November 1929.

Conditions of the competition and site plan will be supplied to each competitor on payment of a deposit of half a guinea. Apply to S. C. Kaines Smith, Keeper, Museum and Art Gallery, Birmingham.

**DUMFRIES: PROPOSED TOWN HALL AND MUNICIPAL CHAMBERS.**

The Provost, Magistrates and Councillors of the Burgh of Dumfries invite architects, resident or practising in Great Britain, to submit, in open competition, designs for a Town Hall and Municipal Building which it is proposed to erect upon an area of ground, being the site of the old Town Hall and Municipal Offices in Buccleuch Street, Dumfries.

Assessor: Sir George Washington Browne, P.R.S.A.

Expenditure: £45,000.

Date of delivery: Noon on 7 December 1929.

Premiums: £300, £200, and £100.

Conditions of the competition and block plan of the site may be obtained on application to the Town Clerk, with a deposit by crossed cheque of £2 2s.

**GUILDFORD: NEW MUNICIPAL BUILDINGS.**

The Guildford Corporation propose to invite local architects to submit, in competition, designs for new municipal buildings.

Assessor: Mr. T. S. Tait [F.].

Premiums: £50 and £25.

[Conditions are not yet available.]

**KINGSTON-UPON-HULL: NEW STREET FROM PARAGON STATION TO BEVERLEY ROAD.**

The Hull Corporation invite architects to submit schemes in competition for the façades of a new street and openings to adjoining streets to be formed from the Paragon Station to the Beverley Road.

Assessor: Sir Reginald Blomfield, R.A., Litt.D., M.A., F.S.A., P.P.R.I.B.A.

Premiums: £750, £350 and £150.

Latest date for receiving designs: 12 (noon), 30 November 1929.

Conditions of the competition can be obtained on application to the Town Clerk, Guildhall, Hull. Deposit, £1 1s.

**LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.**

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a

competition for the improvement of the amenities of the Pier Head.

[Conditions are not yet available.]

**SWANSEA: MUNICIPAL BUILDINGS.**

The Swansea Corporation invite architects to submit, in open competition, designs for new municipal buildings.

Assessor: Mr. Henry V. Ashley, V.-P., R.I.B.A.

Premiums: £750, £500, £300 and £200.

Last date for receiving designs, 18 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Swansea. Deposit £2 2s.

**ANZAC MEMORIAL BUILDING, SYDNEY, N.S.W.**

The Trustees of the Anzac Memorial Building invite competitive designs for an Anzac Memorial to be erected in the City of Sydney, New South Wales.

The qualification of competitors is defined in the conditions of competitions as follows:—

"The competition is limited to Australians who are legally qualified as architects in New South Wales or who are legally qualified to practice architecture outside of New South Wales provided that no competitor shall be employed as architect to the work until he has been duly registered as a legally qualified architect in New South Wales or until other arrangements, satisfactory to the Trustees and to the Board of Architects of N.S.W., shall have been made.

"Nothing in these conditions shall preclude the association of an Australian sculptor with a competitor either during the competition or in the execution of the work.

"For the purpose of this competition 'Australian' shall mean a natural born British subject who has practised or worked in Australia either as a principal or an assistant. Provided that no Australian soldier within the meaning of Part 4 of the Australian Soldiers' Repatriation Act 1920 shall be excluded by this clause."

The competition will be conducted in two stages; the closing date for the first stage is 24 January 1930. The cost of the Memorial is to be £75,000. The conditions of competition have been approved by the Institute of Architects of New South Wales.

Conditions of competition may be obtained from the office of the Trustees of the Anzac Memorial Building, 3rd floor, Wingello House, Angel Place, Sydney, or from the offices of the Institutes of Architects in the various Australian States, or from the office of the Agent-General for New South Wales, Australia House, London.

**COUNTRY GARAGES AND PETROL FILLING STATIONS.**

The Somerset Rural Community Council, in conjunction with the R.I.B.A., invite architects and architectural assistants resident in Somerset to submit designs for Country Garages and Petrol Filling Stations. Assessor, Mr. Harold E. Todd [A.]. Prizes: The "Sir Charles Wakefield" prize, £10 10s., and silver cup presented by the Somerset Automobile Association. Further prizes of £7 7s., £5 5s., and £3 3s., and two cups presented by the S.A.A. Particulars from the Secretary, Somerset Rural Community Council, 42, Bridge Street, Taunton. Deposit 10s. 6d.

## Members' Column

### MR. FRANK SCARLETT.

MR. FRANK SCARLETT, B.A., A.R.I.B.A., has opened an office at 43 Bedford Row, London, W.C.1. Telephone: Chancery 8006.

### MR. E. H. ADAMS.

MR. E. H. ADAMS [A.] has resigned his position with Messrs. Butterfield and Swire to take charge of the Architectural Department of Messrs. Algar and Co., Ltd., at 5 Hongkong Road, Shanghai, China.

### CHANGE OF ADDRESS.

MR. FRANK A. COYLE [L.] has changed his address to 11 Saville Row, Newcastle-on-Tyne. Telephone: Central 8095.

MR. LESLIE E. WILLIAMSON [L.] has changed his address from 2 Southampton Street, Strand, W.C.2, to 36 Southampton Street, Strand, W.C.2.

### APPOINTMENT VACANT.

REQUIRED Eastern Counties all-round provincially trained Architectural Assistant.—Reply Box 3448, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

### PRACTICE FOR SALE.

ARCHITECT retiring, practice, furniture, etc. offered for £250. West Riding town, opportunity for Architect contemplating starting practice, work in hand: good offices.—Address Box 1999, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

### EXCHANGE OR AMALGAMATION.

F.R.I.B.A. who is anxious to return to practice in England and has a well-established practice in India and several jobs in hand, would like to correspond with architect with an established practice in London with a view to exchange practice or amalgamation.—Reply Box 2399, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

### PARTNER WANTED.

ARCHITECT AND SURVEYOR, 35 years in successful practice, West of England, requires Partner.—Apply Box 1010, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

### PARTNERSHIPS WANTED.

FELLOW R.I.B.A. wide experience, own practice, London for many years, and specialised in work that has been superseded by Government action. Capable Master of all details pertaining to busy practice. Desirous of joining established practice as partner. Capital available.—Box 1110, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

ASSOCIATE, thirty years of age, and with five years London experience in the office of a prominent architect, desires partnership in good town or city in South-West of England.—Apply Box 8109, R.I.B.A., 9 Conduit Street, W.1.

F.R.I.B.A. with extensive experience is desirous of entering into Partnership with another keen and well-established Architect with a view to sharing responsibilities, and increasing clientele, some capital available.—Apply in first instance to Box 2109, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

A.R.I.B.A. with 15 years experience of good class work, desires Partnership, willing to work as assistant with view to early partnership. Capital available.—Apply Box 2499, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

ASSOCIATE with American and London experience on many different types of buildings, with academic and practical qualifications, young, energetic, travelled, requires partnership with an established firm in London.—Apply Box 4929, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

F.R.I.B.A. with wide experience is desirous of joining an established firm of architects as partner. At present in practice near Manchester. Capital available.—Box No. 9929, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

### OFFICE ACCOMMODATION WANTED.

ASSOCIATE requires Office accommodation, either near Charing Cross or in the Westminster district. Moderate and inclusive rent. Mediaeval premises preferred.—Apply Box 9214, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

MEMBER desires use of small office in Bedford Row or district, willing to share telephone, etc.—Apply Box 1899, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

### OFFICE ACCOMMODATION.

ASSOCIATE with capable staff and good offices in Bloomsbury, is willing to allow use of his office by provincial members for correspondence and interviews.—Apply Box 1210, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

ASSOCIATE of the Institute with offices in Lincoln's Inn Fields has fine room to let, with service attendance for entrance, etc. Would suit provincial firm requiring London office, or one commencing practice, admirably. Open to discuss conditions with suitable applicant, who must be a principal and a member of the Institute.—Apply Box 8629, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

FELLOW of the Institute with a West End office having a room to spare desires to meet another architect with a view to sharing accommodation and running expenses.—Apply Box 7474, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

SMALL private office to let, furnished, £35 per annum. West Central district.—Apply Box 1109, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

## ARCHITECTS' BENEVOLENT SOCIETY (Insurance Department).

### HOUSE PURCHASE SCHEME (for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66⅔ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

#### RATE OF INTEREST, 5½ per cent. gross.

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

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